
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 20, 2017

Applied Optoelectronics, Inc.
(Exact name of Registrant as specified in its charter)

Delaware
(State of incorporation)

001-36083
(Commission File Number)

76-0533927
(I.R.S. Employer Identification No.)

13139 Jess Pirtle Blvd.
Sugar Land, TX 77478
(address of principal executive offices and zip code)

(281) 295-1800
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement.

On December 20, 2017, Applied Optoelectronics, Inc. (the "Company") entered into a Supply Agreement with Facebook, Inc. ("Facebook") effective as of November 8, 2017 (the "Supply Agreement"). The Company also subsequently entered into a Master Purchase Agreement with Facebook, effective January 2, 2018 (the "Master Purchase Agreement") (the Master Purchase Agreement together with the Supply Agreement, the "Agreements"). Pursuant to the Supply Agreement, Facebook has agreed to purchase a volume of optical communications products from the Company during calendar year 2018 and provided a forecast to make additional purchases in years 2019 through 2020, in each case, based on Facebook's commercially reasonable efforts to provide accurate six-month rolling forecasts to the Company of Facebook's product needs and delivery expectations on a quarterly basis, and pursuant to the Master Purchase Agreement, the Company has agreed to deliver to Facebook, or certain other buyers authorized by Facebook, the volume of optical communications products on the schedule and subject to the delivery requirements set forth in the Master Purchase Agreement. Pursuant to the Supply Agreement, if Facebook and the other buyers authorized by Facebook fall short of purchasing the forecasted volume of product for any quarter in 2018, Facebook will purchase the balance of such product at the end of the applicable quarter. While the Company cannot anticipate every event or be certain of the impact of the Agreements on the Company's financial statements, the Company currently believes that the value of the Agreements to the Company for calendar year 2018 will be approximately \$125 million.

The foregoing summary does not purport to be complete and is qualified in its entirety by reference to the Agreements, copies of which are attached as exhibits 10.1 and 10.2 to this Current Report on Form 8-K and incorporated by reference herein. The copies of the Agreements attached hereto as exhibits have certain portions redacted, as the Company is simultaneously submitting a Confidential Treatment Request to the Securities and Exchange Commission pursuant to Rule 406 under the Securities Act of 1933 and Rule 24b-2 under the Securities Exchange Act of 1934, each as amended, requesting that the Company be permitted to redact such portions of the Agreements. The omitted material will be included in the request for confidential treatment.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
10.1	Supply Agreement, effective November 8, 2017, between Applied Optoelectronics, Inc. and Facebook, Inc.
10.2	Master Purchase Agreement, effective January 2, 2018, between Applied Optoelectronics, Inc. and Facebook, Inc.

Forward Looking Statements

This Current Report on Form 8-K contains "forward-looking statements" that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. The statements contained in this Current Report that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Terminology such as "believe," "may," "estimate," "continue," "anticipate," "intend," "should," "could," "would," "target," "seek," "aim," "believe," "predicts," "think," "objectives," "optimistic," "new," "goal," "strategy," "potential," "is likely," "will," "expect," "plan," "project," "permit," or by other similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. Such forward-looking statements speak only as of the date of this Current Report. The actual results that the Company achieves may differ materially from any forward-looking statements due to risks and uncertainties. Readers are urged to carefully review and consider the various disclosures made by the Company in this Form 8-K and in the Company's other reports filed with the Securities and Exchange Commission that attempt to advise interested parties of the risks and factors that may affect the Company's business. Except as required by law, the Company undertakes no obligation to update any forward-looking statements to reflect events or circumstances after the date of this Current Report.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 21, 2018

APPLIED OPTOELECTRONICS, INC.

By: /s/ David C. Kuo
Name: David C. Kuo
Title: General Counsel and Vice President

Facebook / Applied Optoelectronics Inc. *** Supply Agreement**

This Supply Agreement (“Agreement”) between Facebook, Inc. and Applied Optoelectronics Inc., (AOI) entered into as of 8 November 2017 (“Effective Date”) by and between the Facebook, Inc., and its affiliates (collectively, “Facebook”) having its principal place of business at 1 Hacker Way, Menlo Park, CA 94025 and AOI, having its principal place of business located at 13139 Jess Pirtle Blvd., Sugar Land, TX 77478, and its affiliates (collectively, “AOI”). Facebook and AOI are individually referred to as a “Party” and collectively referred to as the “Parties.”

Recitals

Whereas, AOI develops, manufactures and sells, among other things, ***** optical transceivers; and

Whereas the Parties wish to enter into this Agreement in order for AOI to allocate a forecasted volume of products that AOI is to supply to Facebook in accordance with the terms of this Agreement.

1. 2018 Volume/Capacity Planning

- A. Forecasts. Facebook will use commercially reasonable efforts to provide accurate 6 month rolling forecasts to AOI, identifying Facebook’s potential future product needs and delivery expectations on calendar quarter basis (“Forecasts”). Unless otherwise specified in this Agreement, such Forecasts are for planning purposes, are non-binding, and shall not constitute an order or purchase.
- B. Supply and Purchase Commitment. Table 1 below in this section sets forth AOI’s ***** optical transceiver quantity of product that AOI will supply by Facebook’s deployment quarter and per delivery date as set forth on Authorized Buyer’s purchase order for calendar year (CY) 2018, and covers all volumes for Facebook and Facebook’s VAR partners procuring on Facebook’s behalf (“Authorized Buyers”). Accordingly, Facebook agrees to purchase (or, as applicable, have purchased and received on its behalf by an Authorized Buyer), and AOI agrees to allocate to Facebook (or, as applicable, its Authorized Buyers), the total quarterly amount of product in units to meet Facebook’s deployment schedule. All purchases by Facebook will be subject to Facebook Purchase Order Terms and Conditions, or a superseding Master Purchase Agreement between the Parties, and all purchases by an Authorized Buyer will be subject to the existing agreements with the applicable Authorized Buyer.

Table 1	AOI allocation of product to Facebook in units				Total
	CYQ1-18	CYQ2-18	CYQ3-18	CYQ4-18	CY2018
*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****

- C. Supply Flexibility Commitment. AOI agrees to support up to ***** incremental supply flexibility within each calendar quarter, based on the quarterly committed volume as reflected in table 1. Upside material that is not consumed within the given quarter will be considered available supply for AOI to release as appropriate, after review and agreement with FB. Additional upside greater than ***** will be reasonably evaluated for potential support based on AOI’s standard lead-time.

D. **Unit Growth.** For CY 2019 and CY 2020 Facebook is forecasting AOI production volumes equivalent to the larger of ***** units (*****) or ***** percent (*****%) of Facebook’s total product requirements, i.e. Facebook TAM. Facebook demand forecasts for the subsequent year will be provided to AOI in third calendar quarter of the current CY. For purpose of clarity, Facebook will provide AOI its actual demand forecast for CY 2019 by *****, and the parties will finalize the actual CY 2019 support and purchase commitment by *****.

E. **Product Qualification; Shortfalls; Forecast Changes.**

1. AOI’s products must be qualified at Facebook in advance of the delivery calendar quarter in Table 1 to be eligible for purchase. In the event that Facebook has not completed qualification of the new product revision, AOI will continue to provide the previous product version until either Facebook qualification has been completed the last time ship date in the product change notification has passed, whichever comes first. AOI agrees to provide product change notification documentation not less than 6 months from the last time buy date. The qualification status of a specific product will be determined by AOI and Facebook (or Authorized Buyers) before acceptance of purchase orders. This list of qualified parts will be maintained by AOI and relevant Authorized Buyers.
2. In the event that Facebook and its Authorized Buyers fall short of purchasing the quarterly product volume as set forth in Table 1, Facebook will purchase the balance of committed demand at the end of each respective quarter at the unit price agreed for the shortfall quarter pursuant to the table in Table 2.
3. Notwithstanding any language to the contrary, in the event that AOI fails to meet quarterly delivery requirements stated in Table 1 by a percentage of ***** , AOI will be subject to order cancellation by Facebook with reduced net quarterly consumption overall and cost to cover payment penalties.
4. In such case a Force Majeure event causes AOI to fall short of supplying a quarterly allocation in accordance with Section 1.B, Facebook, in its sole discretion, has the option to move the shortfall allocation amount into a subsequent quarter or to reduce the overall purchase commitment by an amount equal to the shortfall. For purpose of clarity, a Force Majeure event is the only event that will delay or excuse AOI obligation to meet its quarterly shipment commitment.
5. Facebook can request delivery changes by site as set forth in Table 1 beyond a ***** rolling window. AOI will use commercially reasonable efforts to accept the requested change(s).

2. Pricing

A. The Parties agree to the negotiated quarterly price for the product, based on the 2018 RFQ and as shown in the table below.

Table 2	AOI pricing of product to Facebook			
	CYQ1-18	CYQ2-18	CYQ3-18	CYQ4-18
*****	\$*****	\$*****	\$*****	\$*****
*****	\$*****	\$*****	\$*****	\$*****

B. Price negotiations for 2019 business share shall occur prior to ***** purchase commitment.

3. Additional Terms

- A. Term and Termination. The term of this Agreement will begin on the Effective Date and continue for a period of one (1) year (“Term”).
- B. Termination for Cause. Either Party may terminate this Agreement if (i) the other Party fails to cure any material breach of this Agreement within thirty (30) days after written notice of such breach, (ii) ceases to do business in the ordinary course; or (iii) seeks protection under any bankruptcy, receivership, trust deed, creditors arrangement, composition or comparable proceeding, or if any such proceeding is instituted against such Party (and not dismissed within sixty (60) days). In the event of such termination, Facebook will receive a refund of all fees paid in advance for products not yet provided by Vendor.
- C. Non-Exclusivity. Benefits offered in this Agreement are not conditioned on any exclusivity. Furthermore, nothing in this Agreement shall prevent either party from entering in to similar arrangements with third parties.
- D. Confidentiality. This Agreement shall be considered Confidential Information and shall be kept confidential by Facebook and AOI in accordance with the terms of the Mutual Non-Disclosure Agreement made between AOI and Facebook dated *****.
- E. No Waiver. The failure of either party to enforce any right resulting from breach of any provision of this Agreement by the other party shall not be deemed to be a waiver of any right relating to a subsequent breach of such provision of any other right.
- F. Choice of Law. This Agreement shall be exclusively governed and construed in accordance with the laws of the State of California, without regard to its conflict of law principles, and be subject to the exclusive jurisdiction of the courts of the State of California.
- G. Force Majeure. Either party’s performance of any part of this Agreement will be excused to the extent that it is unable to perform due to natural disasters, terrorism, riots, war, extraordinary governmental action, or any other cause which is beyond the control of such party (the “Affected Party”), and provided that such cause is not attributable to the Affected Party (a “Force Majeure Event”). Upon the occurrence of a Force Majeure Event, the Affected Party will promptly notify the other party of the Force Majeure Event, including an estimate of its expected duration and probable impact on the performance of the Affected Party’s obligations under this Agreement. In addition, the Affected Party will (i) exercise commercially reasonable efforts to mitigate damages to the other party and to overcome the Force Majeure Event and (ii) continue to perform its obligations under this Agreement to the extent it is able. If any failure or delay caused by a Force Majeure Event continues for ***** or longer, the party unaffected by such event will have the right to terminate this Agreement without cost or liability upon notice to the Affected Party and to receive a refund of all pre-paid fees for any performance not yet delivered.
- H. Entire Agreement. This Agreement constitutes the entire understanding and agreement between AOI and Facebook with regard to the subject matter hereof and supersedes all prior agreements, communications, representations and discussions between the parties whether written or oral as to such subject matter. Any modification or amendment to this Agreement shall be done only in written form and agreed by authorized representatives of AOI and Facebook.

Accepted and agreed to as of the Effective Date by the authorized representative of each party:

Applied Optoelectronics Inc.

Signature: /s/ Fred H.L. Chang

Name: Fred H.L. Chang

Title: SVP

Contact & Email: *****

Facebook, Inc.

Signature: /s/ Cindy L. Carter

Name: Cindy L. Carter

Title: Director, Infrastructure Sourcing

Contact & Email: *****

**FACEBOOK, INC.
MASTER PURCHASE AGREEMENT**

This Master Purchase Agreement consists of the terms and conditions and any exhibits identified below (“**Agreement**”). This Agreement is entered into by and between *Applied Optoelectronics, Inc.* and its Affiliates with offices at 13139 Jess Pirtle Blvd., Sugar Land, Texas 77478 (“**Vendor**”) and Facebook, Inc. and its Affiliates (as defined below with offices at 1601 Willow Road, Menlo Park, CA 94025 (“**Facebook**”) and is effective as of Jan 2, 2018 (the “**Effective Date**”).

Facebook may purchase products and services from Vendor pursuant to an order, purchase orders or statements of work executed by the parties referencing this Agreement (“**Order**” or “**SOW(s)**”). Those products and services will be delivered in accordance with the terms and conditions of the Agreement.

ATTACHMENTS

Exhibit A	Facebook Software License Terms
Exhibit B	Facebook Software Support and Maintenance Terms
Exhibit C	Pricing Terms
Exhibit D	Approved Buyers
Exhibit E:	Quality Control Requirements

Accepted and agreed to as of the Effective Date by the authorized representative of each party:

Applied Optoelectronics Inc.

Facebook, Inc.

Signature: /s/ Fred H.L. Chang

Signature: /s/ Cindy L. Carter

Name: Fred H.L. Chang

Name: Cindy L. Carter

Title: SVP

Title: Director, Infrastructure Sourcing

Contact & Email: *****

Contact & Email: *****

1. Definitions.

“**Affiliates**” means an entity which, directly or indirectly, owns or controls, is owned or is controlled by or is under common ownership or control with Facebook. As used herein, “control” means the power to direct the management or affairs of an entity, and “ownership” means the beneficial ownership of 50% or more of the voting equity securities or other equivalent voting interests of the entity.

“**Approved Buyer(s)**” means a third party identified in writing by Facebook to Vendor that is authorized to purchase Products under the terms of this Agreement.

“**Compliance**” means that the Product is: (a) performing in the operating environment without errors and otherwise in conformance with the Documentation, any Acceptance criteria specified in the applicable Order provided by Vendor to Facebook about the Product; (b) new and unused; (c) meets all packaging and label requirements; (d) includes all applicable Documentation; and (e) does not contain visible signs of damage (e.g. scratches, marks, chipping, etc.) or any indications of wear and tear, whether on the packaging or the Product itself.

“**Contractor**” means any third party retained by Facebook to perform services on behalf of Facebook.

“Deliverable” means the results of Services, including, but not limited to, any report, software code, documentation or other material of any type provided by Vendor to Facebook under this Agreement.

“Documentation” means the specifications, design documents and analyses, programming tools, plans, models, flow charts, reports and drawings, documentation and any other descriptions related to the Product provided by Vendor to Facebook or to any other customers of the same Product from time to time, which in any event are sufficient to explain the intended functionality of the Product and to assist in the installation, use and modification of the Product.

“Facebook Data” means any and all data and information received, stored, collected, derived, generated, or otherwise obtained or accessed by Vendor in connection with this Agreement, performance of the Services, or if applicable, access to any Facebook properties, sites or any Systems (defined below) regarding any aspect of Facebook’s business, including all personally identifiable information and all other data or information (which, for the avoidance of doubt, includes all personal data within the meaning of Directive 95/46/EC (“**Personal Data**”)) provided by or on behalf of any Facebook user, advertiser, business partner or content provider, and other information such as system procedures, employment practices, finances, inventions, business methodologies, trade secrets, copyrightable and patentable subject matter including without limitation information which Facebook inputs, or provides to Vendor for inputting, into the Product.

“Firmware” means operating system software that is embedded in the Products, pre-installed including updates and modifications by or on behalf of Vendor in the Products.

“Hardware” means computer, devices or equipment, related Documentation, accessories, parts, and upgrades.

“Intellectual Property Rights” means any and all right, title and interest in and to any and all trade secrets, patents, copyrights, service marks, trademarks, know-how, trade names, rights in trade dress and packaging, moral rights, rights of privacy, publicity and similar rights of any type, including any applications, continuations or other registrations with respect to any of the foregoing, under the laws or regulations of any foreign or domestic governmental, regulatory or judicial authority.

“Open Source Software” means any open source, community or other free code or libraries of any type, including, without limitation, any code which is made generally available on the Internet without charge (such as, for example purposes only, any code licensed under any version of the Artistic, BSD, Apache, Mozilla or GNU GPL or LGPL licenses).

“Product” means the Hardware, Software and Deliverables.

“Services” means Support and Maintenance, Training or Professional Services.

“Software” means the computer code described in the Exhibits and Order(s), together with all releases provided under Support and Maintenance and all related Documentation.

“Source Code” means the human readable form of code for the relevant Software which (i) will be narrated fully with logic diagrams, flow charts and any other materials sufficient to enable a reasonably skilled programmer to readily interpret, build, modify, load, use, support and maintain the code and (ii) can readily be compiled by a computer or assembler for execution. Source Code will also include the names and contact information of Vendor developers involved in creating the Software.

“Viral Open Source Software” means any Open Source Software licensed under (i) any version of GNU GPL or LGPL or any Affero license or (ii) any other license which seeks to require any party which uses, modifies or distributes such code to make such code (or modification or derivative work thereof) or any other code which may be combined with or linked to such code available in source code form or which may impose any other obligation or restriction with respect to such party’s patent or other Intellectual Property Rights.

2. Orders and Delivery.

2.1 Order Placement. Each Order will set forth: (i) a description of the Product, and (ii) the fees and the related Services fees. Orders may be entered under this Agreement by Facebook or any Affiliate. The entity that executes an Order with Vendor will be considered „Facebook” for all purposes of the Order and this Agreement; and the Order will be considered a two party agreement between Vendor and such entity.

2.2 Approved Buyers. Any Approved Buyer purchasing as directed by Facebook may buy the Product(s) under the same terms as those in this Agreement, including, but not limited to, the Pricing, and may otherwise act under the same terms as those in this Agreement that apply to Facebook or its Affiliates. Approved Buyers are entitled to the benefits and protections of indemnity, representations and warranties, and remedies under this Agreement to the same extent as Facebook. Further, Facebook is entitled to all rights under the Agreement for all Products purchased by an Approved Buyer as if Facebook had purchased the Product directly from the Vendor. When an Approved Buyer is identified as this Section 2.2 permits, this Agreement terms will govern the Vendor’s dealings with the Approved Buyers, and other agreements that the Vendor may have with Approved Buyers will not apply to those dealings.

2.3 Delivery. All Products will be delivered electronically as instructed by Facebook or DDP Facebook’s specified destination (Incoterms 2010). Products shall be delivered no later than the delivery date specified in the applicable SOW or Order. If Vendor fails to deliver the Product(s) within ten (10) days from the Order Committed Delivery Date or a later date as determined by Facebook, at Facebook’s option, (i) terminate the applicable Order(s), in whole or in part, and receive from Vendor a refund of the amounts paid by Facebook in connection with the terminated Product(s) on the Order(s) or (ii) reimburse Facebook for the difference of costs incurred in the purchase of the Product from a third party, or (iii) extend the required delivery date for a discounted amount for the Product(s). All Software will be provided via electronic delivery unless otherwise specified in the applicable Order.

2.4 Risk of Loss. Title and risk of loss to tangible Products will pass upon Facebook’s inspection of the Products at the Facebook destination. Vendor will pay all duties, export fees, shipping costs, handling fees, VAT and insurance, if any, and Facebook will reimburse upon receipt of correct invoice. In the event of any loss or damaged Products, Vendor will, at Facebook’s request, either promptly replace the lost or damaged Products at Vendor’s sole expense or provide a full refund for the Products.

2.5 Export and Import. Vendor shall be responsible for exporting and importing Products, including payment of export and import costs, for delivery to Facebook in accordance with the delivery terms specified in this Section. Vendor shall also be responsible for exporting and importing equipment Vendor requires to perform the Services. Vendor will be responsible for all duties, export charges and any other amounts imposed by any governmental agency related to such import and export. Vendor shall notify Facebook if Vendor will provide Products subject to the terms of an export license that contains conditions or restrictions on Facebook’s use, transfer or export of Products. In no event shall Vendor provide Products that originated in or were transshipped through countries subject to comprehensive U.S. trade sanctions. In no instance may Vendor list Facebook as the importer or exporter of record on any import, export or other customs documentation for a transaction in which Vendor is the exporter or importer of record, unless instructed otherwise by Facebook. Vendor shall be responsible for compliance with export controls, trade sanctions and import controls applicable to their respective export and import activities. Facebook may suspend performance of their obligations hereunder if: (1) Vendor violates any applicable trade control or sanctions law or regulation; and (2) to the extent necessary to assure compliance under U.S. or other applicable trade control or sanctions laws or regulations. Vendor will keep and maintain complete and accurate records in connection with its performance under this Section and will retain such records as required to ensure compliance.

2.6 Order Changes. Facebook may at any time after issuing an Order postpone delivery or submit to Vendor additions, deductions or deviations to the quantities and delivery schedules of an Order. Provided such changes are issued at least five (5) days prior to delivery of the applicable Product or Service, Vendor shall implement such changes without additional charge. Facebook may cancel at any time after issuing an Order upon written notice to Vendor and Vendor will immediately cease all further work in connection with that Order without any charge to Facebook, provided such cancellation is issued prior to shipment of the Product, otherwise: (1) for Vendor off-the-shelf product, Vendor may invoice Facebook for canceled Products that it cannot sell to its other customers after good faith, verifiable efforts to do so for at least three (3) months; (2) for Facebook-unique product, Vendor will use its best effort to return, reuse, and if that is not possible, to sell raw materials purchased for the canceled Order. Vendor may invoice Facebook for: (a) raw materials that it could not return, reuse or sell at an invoice price equal to Vendor’s cost, and (b) Work-in-progress, at a pro rata share of the Product price based upon percentage completion of the canceled Product without profit mark-up.

2.7 Short Supply. Vendor recognizes that the supply of Hardware under this Agreement is essential for Facebook's offerings of products and services to customers and that Facebook is relying on the timely performance in order to fulfill Facebook's obligations to third parties. In the event of any supply shortages, manufacturing difficulties or process-related reliability problems, Vendor shall allocate no fewer units of Hardware (and within Vendor's manufacturing process no fewer components) for supply to Facebook than a proportionate amount of Vendor's total orders, including orders for its own account.

2.8 Supply of Parts. Vendor agrees to offer for sale to Facebook, during the term of this Agreement and until three (3) years after the expiration or termination of this Agreement, functionally equivalent maintenance, replacement, and repair parts ("**Part(s)**") for the Hardware covered by this Agreement at the same discount level as the discount for the Hardware itself.

2.9 Improvements to Hardware. If Vendor creates any improved or successor versions of the underlying Vendor product on which the Hardware is based, Vendor shall offer such updated Hardware to Facebook. At its option, Facebook may place orders for the improved Hardware or may elect to continue ordering the original Hardware.

2.10 Updates and Upgrades. Vendor will make available to Facebook all "beta" and other pre-release versions of new Hardware and major revisions to Hardware.

3. Intellectual Property.

3.1 Ownership. Except as expressly set forth in the applicable SOW, Vendor and its licensors will retain ownership of all Intellectual Property Rights in the Products developed or acquired by Vendor prior to the Effective Date or independently from (i) any Facebook material (including information or suggestions provided by Facebook) and (ii) materials licensed to Vendor by Facebook. As between Vendor and Facebook, Facebook owns all right, title and interest (including all Intellectual Property Rights) in and to any Facebook software, Systems (as defined below), data (including Facebook Data (as defined below)), Confidential Information (as defined below) or other materials provided by Facebook to Vendor or otherwise accessed by Vendor in connection with this Agreement.

3.2 License Grant. Licenses to the Products, if any, will be as set forth in the applicable Exhibit. Facebook may sublicense to third parties its rights to the Product(s) or software that is provided as a Deliverable under an SOW or Order, for installation and use at those third parties' own premises provided the right to sublicense does not extend to the right to permit access to downstream third parties and does not provide any right to such third party to grant sublicenses.

3.3 Firmware License Grant. Vendor hereby grants to Facebook, its Affiliates and, if applicable, Approved Buyers, a non-exclusive license to use the Firmware for the Products listed in the applicable Order submitted by Facebook, its Affiliates and Approved Buyers and accepted by Vendor. Facebook shall not decompile, disassemble, or otherwise reverse engineer the Firmware and be held jointly responsible for Firmware de-compiling, disassembly, or reverse engineering by its Affiliate.

4. Acceptance.

4.1 Acceptance Testing. Facebook shall have a period of ***** commencing on the delivery date of each Product (or, if installation or implementation is scheduled to be performed by Vendor, the installation or implementation date of such Product) ("**Test Period**") to test such Product in order to determine whether it is in Compliance.

4.2 Correction. If Facebook notifies Vendor that a Product is not in Compliance, Vendor shall then have a period of ***** following receipt of the notice to remedy such non-conformities at Vendor's sole cost and expense. Acceptance testing and correction of non-conformities shall be repeated as required by Facebook to the degree necessary to ensure that any and all defects have been corrected by Vendor to Facebook's satisfaction. If Facebook determines that the non-conformities have not been corrected so that the Product is in Compliance, Facebook may elect one of the following alternatives and require Vendor to: (i) extend the period of time for Vendor to remedy the defects; (ii) accept the Product at a lower price; or (iii) terminate this Agreement or the applicable Order. If Facebook elects to terminate this Agreement or the applicable Order, Vendor shall promptly refund to Facebook all fees (including, but not limited to any related Services fees) that were paid by Facebook in connection with such Product, if any.

4.3 **Acceptance.** Facebook will use reasonable efforts to notify Vendor in writing (email is acceptable) whether the Product has been accepted (“**Acceptance**”). If no written notice of Acceptance is received by Vendor after the Acceptance Testing period as specified in Section 4.1, the Product shall be conclusively deemed accepted by Facebook. Acceptance does not waive any of Facebook’s other rights under this Agreement with respect to such Product.

4.4 **Integration.** If the Product is to be integrated with other products provided by Vendor or at the direction of Vendor, including any customized enhancements, notwithstanding anything to the contrary in Section 4.3 above, the Product shall not be deemed Accepted by Facebook until the Product and such other products have been successfully integrated and Accepted by Facebook in accordance with the terms of this Section. For example, if Vendor is to provide Product(s) consisting of multiple modules or includes enhancements to such Product(s), Facebook’s Acceptance of the Product(s), any individual module or enhancement shall not be final until Facebook Accepts all of the Product(s) and modules or enhancements integrated together as a complete system.

5. **Pricing and Payment.**

5.1 **Invoices.** The fees for the Products and Services shall be as set forth on the applicable Order. Vendor will invoice Facebook for Products upon Delivery of such Products and in advance for Support and Maintenance.

5.2 **Expenses.** Facebook shall not be responsible for travel or any other expenses incurred by Vendor unless reimbursement for such expenses is specifically designated on the applicable Order or SOW and then only to the extent such expenses comply with Facebook’s applicable expense policies and have been approved in advance by Facebook in writing.

5.3 **Payment; Taxes.** All payments will be made in U.S. Dollars. Facebook will pay all undisputed amounts on each invoice within thirty (30) days after Facebook’s receipt of a correct invoice. Any taxes shall be separately stated on the applicable Order and invoice to Facebook. Facebook may withhold from payments to Vendor any taxes required to be withheld by Facebook under applicable law. Facebook will have no obligation to pay any charges and expenses that Vendor fails to invoice to Facebook within one hundred twenty (120) days after Acceptance of a Product.

5.4 **Most Favored Pricing.** If Vendor offers any more favorable term or condition to any other company than that which is offered to Facebook, then Vendor will extend equal or better terms and conditions to Facebook.

5.5 **Credits.** Vendor will pay or offset the amount of the credit to Facebook within thirty (30) days after the credit accrues.

5.6 **Invoice Disputes.** In the event of a good faith dispute with regard to an item appearing on an invoice, Facebook has the right to withhold such disputed amount while the parties attempt to resolve the dispute. Facebook’s withholding of such payment shall not constitute a breach of this Agreement, nor shall it be grounds for Vendor to suspend its performance hereunder, so long as Facebook pays on a timely basis those amounts that are undisputed and owing.

6. **Term and Termination.**

6.1 **Term.** This Agreement is effective as of the Effective Date and shall remain in effect unless terminated in accordance with this Section.

6.2 **Termination for Cause.** Either party may terminate this Agreement if (i) the other party fails to cure any material breach of this Agreement within thirty (30) days after receiving written notice of such breach, (ii) ceases to do business in the ordinary course; or (iii) seeks protection under any bankruptcy, receivership, trust deed, creditors arrangement, composition or comparable proceeding, or if any such proceeding is instituted against such party (and not dismissed within sixty (60) days). Whether or not any disabling device or capability is listed on the Order, Vendor agrees that in no event shall it utilize or activate the same or otherwise attempt to avail itself of any self-help remedies without first obtaining a final judgment issued by a court of competent jurisdiction. Facebook may immediately terminate this Agreement if Vendor fails to comply with Section 2.5 (Export and Import), Section 14.8 (Anti-Corruption) or Section 14.9 (Trade Compliance). Upon a termination for cause by Facebook, Facebook will receive a refund of all fees paid in advance for Products and Services not yet provided by Vendor.

6.3 **Termination for Convenience.** Facebook may terminate this Agreement or any SOW at any time by giving Vendor at least ***** written notice. Upon termination, Facebook will receive a refund of all fees paid in advance for Products and Services not yet provided by Vendor. However, any Orders made prior the effective date of such termination shall be delivered and paid for in accordance with the applicable Order. Facebook is obligated to pay for any Products or Services it accepts before the effective date of termination; or any Services performed by Vendor, where Facebook retains the benefit after the effective date of termination.

6.4 **Survival.** The following Sections shall survive any expiration or termination of this Agreement: 1 (Definitions), 2.5 (Import/Export), 3 (Intellectual Property), 5 (Pricing and Payments), 6 (Term and Termination), 7 (Representations and Warranties), 9 (Limitation of Liability), 10 (Indemnification), 11 (Confidential Information), 12 (Access and Data Security) and 13 (Epidemic Defect), and 14 (General). Unless otherwise specified by Facebook, any Order or SOW entered into prior to the termination of this Agreement shall remain in effect.

7. **Representations and Warranties.** Vendor represents and warrants as follows:

7.1 **General Warranties.** Vendor represents and warrants that:(i) Vendor has full right and power to enter into and perform this Agreement and its performance under this Agreement and (ii) obtained and will maintain all rights, approvals and consents necessary to perform its obligations and grant all rights and licenses granted to Facebook under such agreements.

7.2 **Product Warranties.** All Products will (i) be new and unused; (ii) be provided with good and marketable title, free and clear of any and all liens and other encumbrances; (iii) be in Compliance; and, (iv) meet all product safety standards and requirements referenced in the Specifications and Policies, as applicable. Additionally, Vendor warrants that for three (3) years from the date of Acceptance (“**Warranty Period**”) all Products, Components therein, and Services will be: (A) free from defects in design, material and workmanship; (B) in Compliance, including with the applicable Specifications; and (C) manufactured in a professional, workmanlike manner.

7.3 **ISO 9000.** Vendor and any authorized Subcontractors used by Vendor in the manufacture of Units shall have current ISO 9000 and 9001:2000 certification. If either Vendor or Vendor’s authorized Subcontractors lose the ISO 9000 and 9001:2000 certification, Vendor shall notify Company in writing immediately. Vendor and any Third Party Providers will then have sixty (60) days to be recertified.

7.4 **Compliance with Laws.** Vendor’s performance under this Agreement is and will comply with all applicable international, federal, state, local laws and government rules and regulations. Vendor will comply with 1) with all provisions of applicable laws and government regulations pertaining to the privacy and security of Facebook’s Data and Confidential Information, including but not limited to, California employee data privacy laws and the EU Data Protection Directive and the regulations promulgated thereunder; and 2) Vendor will comply at all times with all Facebook policies which have been provided to Vendor.

7.5 **Non-Infringement.** To the best of Vendor’s knowledge, neither the Products nor any Deliverable, nor any element thereof, will infringe the Intellectual Property Rights of any third party or be subject to any restrictions or to any liens, security interests, encumbrances or encroachments. Vendor agrees that it will notify Facebook immediately if Vendor becomes aware of any actual or potential claims that could affect Vendor’s ability to perform under the Agreement.

7.6 **No Harmful Material.** The Products shall be free of any: (i) viruses, worms, time bombs, Trojan horses or other harmful, malicious or destructive code and (ii) software disabling devices, time-out devices, counter devices and devices intended to collect data regarding usage of the Products (except, if applicable, for license keys disclosed to Facebook in writing in advance).

7.7 **No Open Source.** The Products do not and will not contain (or require to function) any Open Source Software, including, without limitation, any Viral Open Source Software, except as expressly disclosed in the Documentation. Vendor further represents and warrants that any use by Facebook of the Products under this Agreement will not subject Facebook to any obligations under any Open Source Software license, including, without limitation, any Viral Open Source Software license.

7.8 **No Remote Access or Disruption.** Vendor represents and warrants that it has not included in any Product any device or mechanism which would permit Vendor or any third party to remotely access or disable the Product. In no event will Vendor, its agents or employees or anyone acting on its behalf, disable or interfere, in whole or in part, with Facebook’s use of the Products or any software, hardware, systems or data owned, utilized or held by Facebook without the written permission of Facebook.

7.9 Services Warranty. Vendor shall render Services in a professional manner consistent with highest industry standards, and all personnel providing Services will be appropriately trained and qualified.

7.10 Pass Through of Third Party Warranties. Vendor will provide to Facebook the full benefit of all covenants, warranties, representations and indemnities granted to Vendor by third parties in connection with the Products.

7.11 Warranty Remedy. In the event of a breach of any of the warranties in this Section 7, Facebook may return the defective Product(s) to Vendor for replacement of the Product(s) with the same or additional functionality and comparable or improved performance characteristics without charge to Facebook. If a replacement is not commercially reasonable or is not provided promptly (in all cases, within no more than thirty (30) days), then Facebook may either (a) accept the Product(s) with the nonconformity, in exchange for a proportionally lower price, or (b) terminate the license for the Product(s) and obtain a refund of the amounts paid by Facebook for the Product(s).

7.12 Warranty Returns. Within one week after Facebook informs Vendor that Hardware does not conform to the warranties of this Section 7, Vendor will, at its own expense, ship a replacement to the nonconforming Hardware or Part with a unit that is in Compliance, and that replacement will be considered new Hardware (or a new Part, as applicable). If Vendor fails to do so within that period, Facebook may, at its option, (i) extend the correction period or (ii) obtain a full refund of all fees paid to Vendor for the unit and reimbursement for any other Hardware and Parts that Facebook is unable to use as a consequence of the nonconformity. Vendor shall be responsible for all shipping and insurance for returns and replacements, and shall replace any Hardware and Parts returned for replacement with new (not used or refurbished) units free of charge. Repaired and replacement Hardware and Parts shall be warranted for a new warranty term as set forth above in this Section.

7.13 RMA Process. Facebook may invoke this Section at any time in addition to Facebook's rights under warranty. Facebook may, at its election, implement the following return process in addition to or in lieu of the warranty service to be provided by Vendor. If Facebook believes any unit of Hardware has not met the warranty terms set forth in the Agreement: (i) Facebook shall contact Vendor and describe the problem. Vendor shall provide a Return Material authorization (RMA) number and shipping address, method and instructions for the Hardware; and (ii) Facebook shall ship, at Vendor's expense freight and insurance prepaid, the Hardware to the address designated by Vendor along with the RMA number. Risk of loss shall be on Vendor from time of shipment. Facebook shall notify Vendor of the shipping and insurance costs. Vendor shall perform testing to determine whether Vendor believes the Hardware contains a material or workmanship problem, including without limitation any issue which would cause it to fail to be in Compliance, and if so determined (a "Confirmed Defect"), then Vendor shall: (i) promptly either repair the Hardware or replace the Hardware with a new unit and ship the repaired or replaced Hardware to Facebook, at Vendor's expense freight and insurance prepaid to Facebook; or (ii) if Facebook agrees to receive payment in lieu of a replacement, issue payment to Facebook for the amount paid by Facebook for the defective unit. If requested, Vendor shall advance Facebook a conforming unit of Hardware, within one week, at Vendor's expense freight and insurance prepaid, and the parties shall meet and discuss in good faith a mutually agreeable solution.

7.14 Warranties Survive Inspection. All warranties set forth in this Section 7 shall survive inspection, Acceptance and payment.

7.15 Warranty Disclaimer. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY WARRANTIES, EITHER EXPRESS OR IMPLIED, AND EACH PARTY EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

8. Support and Professional Services.

8.1 Support and Maintenance. Vendor will provide Facebook with the technical support and maintenance services set forth in the applicable Exhibit(s) ("**Support and Maintenance**").

8.2 Professional Services. Vendor shall provide professional services and training ("**Professional Services**") purchased in the applicable Order or SOW describing the work to be performed, fees and any applicable milestones, dependencies and other technical specifications or related information. Both parties must sign each SOW before Vendor shall commence work under such SOW.

8.3 On-Site Personnel. Vendor personnel visiting Facebook facilities must receive advance approval from Facebook. Vendor agrees to provide Facebook with any pertinent information necessary to allow Facebook to comply with applicable U.S. export regulations, trade sanctions, and Facebook policies. If any Vendor personnel working on-site at Facebook is not performing satisfactorily, Facebook may request Vendor to remove such person at no cost to Facebook.

8.4 Interoperability Support. Vendor shall provide Facebook with such interoperability support as requested by Facebook, including without limitation:

- i. At least two (2) dedicated engineering personnel who specialize in use of the Hardware with Facebook products and in a Facebook environment;
- ii. Access to all technical information requested by Facebook for performing interoperability testing; and
- iii. Access to at least thirty-two (32) units of each Hardware Product (including each new version) for evaluation, engineering and testing purposes.

8.5 Technical Support. Vendor shall provide support to answer technical, installation, feature, performance, and other questions related to the Hardware. Such support will be staffed with engineering personnel familiar with the Hardware and their interoperability with Facebook products. Facebook will escalate technical problems to Vendor according to Facebook's then-current escalation policy. Vendor will respond to the resolution of the problems as set forth in that policy, and according to the priority and severity levels designated to each escalation by Facebook. Any issue not resolved during the initial call will be staffed with a designated engineering resource, who shall work exclusively on the issue until resolution. Support of Facebook issues shall be prioritized above any other support issues handled by Vendor. That resource shall provide Facebook with updates no less than once per calendar day unless otherwise agreed by Facebook. Vendor shall maintain an incident reporting system, including issuing support tickets for each incident, tracking such tickets, and providing reports on open issues upon Facebook's request.

9. **Limitation of Liability.**

EXCEPT FOR INFRINGEMENT OF FACEBOOK'S INTELLECTUAL PROPERTY RIGHTS, BREACH OF SECTION 7.4 (NO HARMFUL MATERIAL), SECTION 7.6 (NO REMOTE ACCESS OR DISRUPTION), VENDOR'S INDEMNITY OBLIGATIONS, SECTION 11 (CONFIDENTIALITY), BREACH OF SECTION 12 (ACCESS AND DATA SECURITY), BREACH OF SECTION 13 (EPIDEMIC DEFECT); (A) NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, REGARDLESS OF THE FORM OF ACTION WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR OTHERWISE, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES; AND (B) EACH PARTY'S MAXIMUM AGGREGATE LIABILITY UNDER THIS AGREEMENT SHALL BE LIMITED TO THE GREATER OF THE TOTAL AMOUNTS PAID BY FACEBOOK TO VENDOR DURING THE TWELVE (12) MONTHS IMMEDIATELY PRECEDING THE CLAIM OR ONE MILLION DOLLARS (\$1,000,000).

10. **Indemnification.**

10.1 Vendor will defend, indemnify and hold harmless Facebook, its Affiliates and their respective officers, directors, employees, sublicensees, contractors, users and agents from any and all claims, losses, liabilities, damages, expenses, penalties, taxes, and costs (including attorneys' fees and court costs) arising out of or related to: (a) any actual or alleged breach of any representation, warranty or other provision of this Agreement by Vendor; (b) any actual or alleged infringement of any intellectual property rights by the Products, Deliverables or use of either; (c) negligent, willful or reckless acts or omissions, dishonesty or fraud of or by Vendor, its agents, employees or representatives; (d) a breach or alleged breach of Vendor's obligations under Section 12 (Access and Data Security); and (e) any personal injury, bodily injury, advertising injury, or property damage caused by the negligence, acts or omissions of Vendor (each a "**Claim**"). Facebook shall give prompt written notice of a Claim and Facebook has the right (but no obligation) to participate in the defense of such Claim at its expense. In no event will Vendor settle any Claim without Facebook's prior written consent, not to be unreasonably delayed.

10.2 Remedies Should the Product become, or in Facebook's opinion be likely to become, the subject of a Claim, Vendor will, at Facebook's option, and Vendor's sole expense either: (i) procure for Facebook the right to continue to use the Product as contemplated hereunder, or (ii) modify the Product to eliminate any Claim which might result from its use hereunder, provided that the Product's performance must remain at least as good as provided in the Documentation and subject to Facebook's approval, (iii) replace the Product with equally suitable, compatible and functionally equivalent non-infringing software services subject to Facebook's approval, at no additional charge to Facebook, or (iv) terminate this Agreement and all applicable Orders and receive a refund of the fees specified in the applicable Order.

11. Confidential Information.

11.1 Disclosures. “**Confidential Information**” includes, without limitation, all technical and non-technical information provided by a party (“**Disclosing Party**”) to the other party (“**Receiving Party**”) that is either: (a) designated as confidential by the Disclosing Party at the time of disclosure; or (b) should reasonably be considered confidential, given the nature of the information or the circumstances surrounding its disclosure. Notwithstanding the above, all Facebook Data and all technical and non-technical information concerning or related to Facebook’s products, services, online properties (including the discovery, invention, research, improvement, development, marketing, or sale thereof), financial data and models, business and marketing plans and any information related to the foregoing constitutes the Confidential Information and property of Facebook. The Receiving Party will not: (1) use any Confidential Information except for the sole benefit of the Disclosing Party and only to the extent necessary to provide the Services under this Agreement; or (2) disclose any Confidential Information of the Disclosing Party to any person or entity, except to the Receiving Party’s resources who are involved in performing this Agreement, have a need to know, and have signed a non-disclosure agreement with terms no less restrictive than those herein.

11.2 Exclusions. Except for Facebook Data, Section 11.1 will not apply to any information that: (a) is rightfully known by the Receiving Party prior to disclosure by the Disclosing Party; (b) is rightfully obtained by the Receiving Party from a third party without restrictions on disclosure; (c) is disclosed by the Receiving Party with the prior written approval of the Disclosing Party; or (d) to the extent required by law or court order so long as Receiving Party provides advance notice to the Disclosing Party as promptly as possible and cooperates with the Disclosing Party’s efforts to obtain a protective order regarding such disclosure. Vendor warrants and represents all parties have agreed in writing to be bound by confidentiality obligations no less restrictive than those contained in this Agreement.

11.3 Return of Materials. Upon expiration or any termination of this Agreement the Receiving Party will promptly destroy or (if requested) return the Disclosing Party’s Confidential Information and all copies thereof, provided that the Receiving Party may retain a single archival copy of Confidential Information if required to do so under applicable law.

12. Access and Data Security.

12.1 Access to Systems. Access to Facebook’s computer, telecommunication or other information systems (“**Systems**”) is granted solely to facilitate the business relationship described in this Agreement, and is limited to those specific Systems, time periods, and personnel as are separately designated by Facebook in writing from time to time. Access is subject to business control and policies, standards, and guidelines as may be provided by Facebook. Vendor warrants that it has adequate security measures in place to comply with the above obligations and to ensure that access granted hereunder will not impair the integrity and availability of Systems. Upon reasonable notice, Facebook may audit Vendor to verify Vendor’s compliance with these obligations.

12.2 Data Protection.

(a) Safeguards. Vendor shall implement and maintain administrative, physical and technical safeguards that prevent any unauthorized use, access, processing, destruction, loss, alteration, or disclosure of any of Facebook’s data (including any client or end user data held by Facebook) (“**Facebook Data**”) as may be held or accessed by Vendor. Such safeguards shall include, without limitation, an information security program that meets the highest standards of best industry practice to safeguard Facebook Data. Such information security program will include, without limitation: (i) adequate physical security of all premises in which Facebook Data will be processed or stored; (ii) all reasonable precautions taken with respect to the employment of and access given to Vendor personnel, including background checks and security clearances that assign specific access privileges to individuals; and (iii) an appropriate network security program (which includes, without limitation, encryption of all sensitive or private data). Vendor agrees not to utilize any Facebook Data unless it is necessary to do so in order to fulfill an obligation under this Agreement and will not sell, disclose, transfer, share or rent any Facebook Data.

(b) Notification of Security Breach. Vendor will notify Facebook immediately following discovery of any suspected breach or compromise of the security, confidentiality, or integrity of any Facebook Data. Written notification provided pursuant to this paragraph will include a brief summary of the available facts, the status of Vendor’s investigation, and if known and applicable, the potential number of persons affected by release of data (“**Affected Persons**”). Upon written request from Facebook, Vendor agrees to notify the Affected Persons regarding any security breach in a form approved in writing by Facebook. All costs associated with any security breach including but not limited to, the cost of the notices to, and credit monitoring for at least one (1) year, Affected Persons will be the sole responsibility of Vendor. Vendor will not communicate with any third party, including, but not limited to the media, vendors, consumers and Affected Persons regarding any security breach without the express written consent and direction of Facebook, unless Vendor must communicate such information to a security partner or consultant which is necessary to remedy the security issue. All such information shall be considered Facebook’s Confidential Information for purposes of this Agreement.

13. Epidemic Defect.

13.1 **“Epidemic Defect”** means the occurrence of a non-conforming Product defect or other failures due to a same or similar root cause (whether or not resulting in breach of any warranties of Section 7) at a rate equal to or in excess of ***** pursuant to any Order. If an Epidemic Defect occurs, Vendor shall assist Facebook in the technical resolution of the Epidemic Defect. Vendor shall be responsible for all losses, liabilities, damages, and costs that Facebook incurs as a result of the Epidemic Defect. By way of example only, this includes the costs of (i) any solution, workaround, recovery plan or engineering change required to remove or repair causes of the Epidemic Defect; and (ii) any removal, re-installation, retrofit, and Products recall. In addition, upon Facebook’s request, Vendor shall, at its sole expense, support and provide sufficient volume of Products to enable the replacement of the non-conforming Products at Facebook-designated sites. Also, Vendor shall use best efforts to diagnose the Epidemic Defect’s root cause and plan an effective work around and permanent solution. Vendor shall consult with Facebook on any proposed workarounds and other solutions and shall not implement any of these without Facebook’s prior written approval. Facebook may, at its sole option, return (including shipping and insurance charges), for full credit, and immediately terminate this Agreement upon notice without liability to Vendor.

13.2 **Failure Analysis.** If an Epidemic Defect occurs, Vendor shall provide to Facebook: (a) a containment plan within forty-eight (48) hours after Facebook’s notice; (b) an initial written failure analysis within forty-eight (48) hours after receiving the returned non-conforming Product(s); and (c) a **“root cause”** failure analysis and a written corrective action plan, approved by Facebook, within seven (7) days after receipt of returned non-conforming Product(s). Vendor shall also provide related technical support at no charge as Facebook reasonably requests.

14. General.

14.1 **Assignment.** Neither party may assign the Agreement or its rights or obligations hereunder without the other party’s prior written consent, except that Facebook may assign the Agreement without Vendor’s consent to any Affiliate; provided that if the other party does consent, such assignee agrees to be bound by the terms and conditions of the Agreement, and provided that in no case may Vendor transfer any Facebook Data to an assignee or to any acquirer in the event of a change of Control without Facebook’s prior written consent. Subject to the foregoing limitation on assignment, the Agreement will be binding upon, enforceable by and inure to the benefit of the parties and each of their successors and permitted assigns. For purposes of this paragraph, **“Facebook User Data”** means: (a) any data, content, code or other materials received by Vendor from Facebook in connection with this Agreement; and (b) any information that Vendor would not have if vendor did not access such data, content, code or other materials in connection with this Agreement.

14.2 **Waiver and Severability.** No provision of this Agreement will be waived by any act, omission or knowledge of a party or its agents or employees except specifically in a writing signed by the waiving party. If any provision is deemed by a court unenforceable or invalid, that provision will be stricken or modified and the remainder of this Agreement will be in full force and effect.

14.3 **Governing Law; Jurisdiction and Venue.** This Agreement will be governed and construed under the laws of the State of California without regard to conflicts of law provisions. Any suit or proceeding arising out of or relating to this Agreement will be brought in the federal or state courts, as applicable, in San Mateo County, California, and each party irrevocably submits to the jurisdiction and venue of such courts. The parties expressly disclaim and waive the application of the Uniform Computer Information Transactions Act to this Agreement and to any claims arising under or related to this Agreement.

14.4 **Non-Discrimination.** Facebook is a federal contractor and maintains an equal opportunity and affirmative action program in accordance with applicable law. As a result, Vendor must afford equal employment opportunity to all of its applicants and employees, regardless of their race, color, national origin, sex, age, religion, marital status, sexual orientation, gender identity and gender expression, protected veteran status, disability, or other basis protected by law. If applicable, the Equal Opportunity Clauses set forth in 41 C.F.R. parts 60-1.4(a) and the employee notice found at 29 C.F.R. Part 471, Appendix A to Subpart A are incorporated by reference herein. If applicable, Vendor shall abide by the requirements of 41 CFR §§ 60-300.5(a) and 60-741.5(a).

14.5 **No Publicity.** Vendor agrees that it will not use Facebook’s name, logo or trademarks or issue any public announcements or press releases, or confirm or comment on any information, public or otherwise, concerning Facebook or its business, regarding this Agreement.

14.6 Notices. Any notice hereunder will be in writing to the address set forth above (and in the case of Facebook, to the attention of Legal-Notices@fb.com) and will be deemed given: (i) upon receipt if by personal delivery; (ii) upon receipt if sent by certified or registered U.S. Mail (return receipt requested); or (iii) one (1) day after it is sent if by next day delivery by a major commercial delivery service and electronic mail.

14.7 Entire Agreement. This Agreement (including all exhibits, Orders and SOWs) is the entire agreement of the parties and supersedes all previous or contemporaneous agreements between the parties relating to its subject matter. If the terms of any Orders or SOW conflict with the terms of this Agreement, the terms of the applicable Orders or SOW will prevail as to the pricing, delivery dates and description of the applicable Products, Services and Deliverables but will not prevail over, modify or terminate any surviving provision of this Agreement. This Agreement may only be modified by an amendment signed by the parties.

14.8 Anti-Corruption. Vendor represents and warrants that it has complied and shall comply with all applicable laws, rules, and regulations and that it has used and shall use only legitimate and ethical business practices; and shall refrain from offering, promising, paying, giving, authorizing the paying or giving of, soliciting, or accepting money or anything of value (including facilitation of payments), discounts, rebates, gifts, use of materials, facilities or equipment, entertainment, hospitality, drinks, meals, transportation, lodging, or promise of future employment, directly or indirectly, to or from (a) any Government Official to (i) influence any act or decision of a Government Official in his or her official capacity, (ii) induce a Government Official to use his or her influence with a government or instrumentality thereof, or (iii) otherwise secure any improper advantage; or (b) any person in any manner that would constitute bribery or an illegal kickback, or would otherwise violate applicable anti-corruption law. "**Government Official**" means any official or employee of (1) any national, regional, or local government in any country, (2) any government-owned or -controlled enterprise; (3) any public educational, scientific, or research institution; (4) a political party; (5) any candidate (including the candidate) for public office; (6) a public international organization; and any person acting on behalf of or any relatives, family, or household members of any of those listed above.

14.9 Trade Compliance. Vendor represents and warrants that neither Vendor, nor the Services to be performed under this Agreement, are subject to or prohibited by UN, U.S. or EU economic sanctions or trade restrictions, as well as any other applicable economic sanctions or trade restrictions.

14.10 Independent Contractors. The parties to this Agreement are independent contractors and not employees, partners, agents or joint ventures between the parties. Vendor will be solely responsible for all acts, obligations and payments due with respect to its resources. Vendor, and not Facebook, will be responsible for the hiring, supervision, discipline and control of its resources. Neither party will have the power to bind the other or incur obligations on the other party's behalf without the other party's prior written consent.

14.11 Force Majeure. Either party's performance of any part of this Agreement will be excused to the extent that it is unable to perform due to natural disasters, terrorism, riots, war, extraordinary governmental action, or any other cause which is beyond the control of such party (the "**Affected Party**"), and provided that such cause is not attributable to the Affected Party (a "**Force Majeure Event**"). Upon the occurrence of a Force Majeure Event, the Affected Party will promptly notify the other party of the Force Majeure Event, including an estimate of its expected duration and probable impact on the performance of the Affected Party's obligations under this Agreement. In addition, the Affected Party will (i) exercise commercially reasonable efforts to mitigate damages to the other party and to overcome the Force Majeure Event and (ii) continue to perform its obligations under this Agreement to the extent it is able. If any failure or delay caused by a Force Majeure Event continues for ***** or longer, the party unaffected by such event will have the right to terminate this Agreement without cost or liability upon notice to the Affected Party and to receive a refund of all pre-paid fees for any performance not yet delivered.

14.12 No Subcontractors. Vendor shall not subcontract any of its obligations under this Agreement without the prior written consent of Facebook.

14.13 Audits. Upon ***** advance notice, Vendor will permit Facebook or its representative to review Vendor's records, third party audit and examination reports, systems, facilities, processes, procedures, information regarding pricing and service levels which relate to Vendor's performance under the Agreement. Any such audit will be conducted during normal business hours and in a manner designed to cause minimal impact on Vendor's ordinary business activities.

14.14 Import/Export. Vendor shall be responsible for exporting and importing (including any required permits, licenses and authorizations) Deliverables, Documentation, Products, Software and Vendor Confidential Information (“**Items**”). Vendor will not list Facebook on any import, export or other customs documentation unless instructed by Facebook, and will be directly responsible for compliance with all applicable export controls, import controls and trade sanctions. Vendor shall provide the applicable Export Control Classification Number (“**ECCN**”) for all Items classified with an ECCN other than EAR99. Vendor shall also provide copies of export licenses, if any, obtained for such Items. The ECCN and/or export license if required, shall be provided upon delivery of the Items to Facebook or Approved Buyer. In no event shall Vendor provide Items that originated in or were transshipped through countries subject to comprehensive U.S. trade sanctions. The costs incurred for exporting and importing Deliverables, Documentation, Products, Software and Vendor Confidential Information. Such costs shall be invoiced to Facebook or Approved Buyer on itemized invoices, without mark-up or uplift and with supporting documentation to substantiate said costs. Vendor will be solely liable for, and will defend, indemnify, and hold Facebook harmless against any liability or damages arising out of Vendor’s breach of this Section 14.14, including any taxes, duties, interest or penalties. If Facebook returns any Units under this Agreement, they will be returned ex-works (EXW) (Incoterms 2010), Facebook’s place of business. Vendor will be the exporter and importer of record for ensuring that such returns comply with all export and import regulations. Title and risk of loss for returned Units transfers to Vendor upon delivery to Vendor’s designated carrier. Vendor agrees that any duties and taxes that may be recoverable by the Vendor will not be charged or collected from Facebook. Vendor represents and warrants that Vendor, Vendor personnel and Vendor subcontractors performing under the terms of this Agreement are not subject to any applicable UN, U.S. or EU economic sanctions and trade restrictions.

14.15 **Insurance.**

14.15.1 Coverage Vendor will maintain, continuously throughout the Term, at its own expense insurance of the type and in the amounts specified below:

14.15.2 Commercial General Liability (including products/completed operations, advertising, and personal injury liability) with a limit of not less than five million dollars (\$5,000,000.00) per occurrence, five million dollars (\$5,000,000.00) per aggregate;

14.15.3 Business Automobile Liability with a limit of not less than one million dollars (\$1,000,000.00) per occurrence (injury and property damage combined);

14.15.4 Worker’s Compensation as required by law in all jurisdictions where Vendor has employees;

14.15.5 Employer’s Liability with a limit of not less than one million dollars (\$1,000,000.00) per occurrence;

14.15.6 Fidelity Bond of not less than five hundred thousand dollars (\$500,000.00).

14.15.7 Insurance Requirements. The insurance policies for the above must: (a) be issued by companies with a rating of A-/VII or better in the current Best’s Insurance Reports published by A.M. Best Company, Inc.; (b) not be able to be cancelled or have coverage reduced without at least thirty (30) days’ notice from Vendor to Company; (c) for Commercial General Liability only, name Company and its Affiliates, and their respective officers, directors, employees, successors, assigns, licensees, distributors, contractors and agents, as additional insureds; (d) provide coverage on an occurrence basis; (e) waive any insurer right of subrogation against Company and their respective officers, directors, employees, agents, and contractors; and (f) provide primary coverage, without any right of contribution from any other insurance that Company may have. Vendor will give Facebook certificates of insurance for the above by the Effective Date and at each later policy renewal.

14.16 Notice of Changes and End of Life. Vendor shall provide ***** advance written notice to Facebook whenever a component of any Hardware is planned to end of life by the component vendor or Vendor otherwise becomes aware that such component may no longer be available. In the event that a component situation would require a change to the OS image, memory, a controller, a processor, a hard drive or a motherboard, Vendor will provide a detailed end of life plan to be agreed with Facebook that may include end of life purchases of components to maintain the existing configuration for a reasonable length of time. In all cases, Vendor will have conducted extensive component testing to ensure the replacement component meets Vendor’s and Facebook’s quality standards. Vendor will provide a sample of any such new component for testing at Facebook’s request.

14.17 Cumulative Remedies. All remedies in this Agreement are cumulative and in addition to any other remedies available to a party at law or in equity. In the event of a claim by Facebook for loss or damages for which Vendor is responsible, Facebook will be entitled to adjust the amounts claimed against future or outstanding payments due, or which may become due, to Vendor.

14.18 Counterparts. This Agreement, including its Orders and SOWs, may be executed in counterparts including PDF and other electronic copies, each of which will be deemed an original and together will constitute the same instrument.

EXHIBIT A
FACEBOOK SOFTWARE LICENSE TERMS

If Applicable, this Exhibit is an attachment to the Master Purchase Agreement contains additional terms and conditions related to Vendor's license of Software to Facebook. Any capitalized terms not defined herein shall have the meanings given in the Agreement.

1. Software License.

1.1 **Grant of License.** Vendor hereby grants to Facebook an irrevocable, non-exclusive, worldwide license to use the Software and Documentation in accordance with the terms and conditions set forth in this Agreement, Exhibits and the Order(s) when this Agreement remains in effect. For the purposes of this Section 1.1, the term "**use**" means to copy, install, access, execute, operate, distribute, archive and run the Software for any and all purposes including use by Facebook's employees and its Contractors ("**Users**"). Unless otherwise specified in an applicable Order, Facebook may make an unlimited number of copies of the Software, install the Software on an unlimited number of computers, devices or machines and permit an unlimited number of users to access and use the Software.

1.2 **Copying, Testing and Archiving Rights.** Facebook may make a reasonable number of copies of the Software and Documentation as it deems necessary for testing, training, development, archival, emergency restart, back-up, archive, staging, disaster recovery and similar purposes ("**Non-Production**"). The pricing and license calculation shall apply only to the total number of copies in production use. Non-Production use of the Software shall not be included and shall be provided at no additional charge.

1.3 **Patent Rights.** All licenses are made under all applicable Intellectual Property Rights of Vendor and include the right to make, have made, sell, offer to sell and import, in each case as applicable, under any and all patent rights (including applications, patents and continuations in whole or in part) of Vendor worldwide, subject to the scope of the license as stated in Section 1.1 (Grant of License) above.

1.4 **New Operating Environments and Locations.** Vendor acknowledges that Facebook may want or need to run the Software on multiple, different, remote, successor or replacement servers, computers and/or operating environments. Consequently, Facebook shall have the right to move and reinstall the Software and Vendor shall supply all of the necessary license keys without any additional charge and Facebook's right to use the Software shall be deemed to include all versions of the Software that are capable of supporting various operating environments or components thereof. Upon Facebook's request, and at no additional charge, Vendor shall promptly deliver to Facebook the versions of the Software together with copies of the Documentation, as may be required for use in any operating environments supported by the Software.

1.5 **Successor Software to the Software.** If Vendor adds or removes any feature or functionality in the Software and subsequently offers those features or functionality in a new version or different Product ("**Successor Product(s)**"), then the Software licenses set forth herein shall be deemed to include the Successor Product however bundled or marketed. There will be no additional charge for the rights granted under this Section. The foregoing criteria shall apply whether or not the underlying Product is marketed, sold or licensed using its existing name or has been renamed in whole or in part. If Facebook elects to continue receiving Support and Maintenance, Facebook shall pay the same Support and Maintenance fees charged for the Product for support of the Successor Product.

1.6 **Divested Affiliates.** In the event Facebook reduces its control in an Affiliate to less than majority ownership ("**Divested Affiliates**"), Facebook may at its discretion with no additional charge allow the Divested Affiliate to continue to use the Software or utilize the Software for the purpose of facilitating an orderly transition to its new status for up to one (1) year.

1.7 **License Restrictions.** Facebook shall not: (i) decompile, disassemble, or otherwise reverse engineer the Software (except to the extent that applicable law prohibits or restricts reverse engineering restrictions); (ii) sell, rent, lease or use the Software for time sharing purposes; or (iii) remove any copyright or proprietary notices contained in the Software.

2. **Software Warranty.** During the period commencing on Acceptance of the applicable Software licensed under an Order and extending for one (1) year thereafter (“**Warranty Period**”), each version of the Software shall operate in material conformance with the applicable Documentation, any Acceptance criteria specified in the applicable Order. Vendor will provide warranty service to Facebook at no additional charge and will include all services or replacement Software necessary to enable Vendor to comply with the warranties set forth in this Agreement. In the event Vendor is not able to cure any breach of any warranty set forth in this Section within thirty (30) days of written notice thereof from Facebook, Facebook shall at its option have the right to (i) terminate this Agreement and all applicable Orders or terminate only the applicable Order(s) and receive a full refund of all applicable Software and Services fees or (ii) elect to continue the time Vendor has to cure the defect and receive a reduction in all Services fees to be agreed upon by both parties for each month thereafter that the defect remains uncured.

3. **Bankruptcy.** All rights granted to Facebook under this Agreement are deemed to be, for purposes of Title 11, Section 365(n) of the Bankruptcy Code, licenses of rights to “**intellectual property**” as defined under Section 101(35A) of the Bankruptcy Code. As a licensee of such rights, Facebook may retain and exercise all of its rights and elections under the Bankruptcy Code. In the event of a commencement of bankruptcy proceedings by or against Vendor, Facebook shall be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of that intellectual property, and if not already in the possession of Facebook, the same shall be promptly delivered to Facebook (i) upon request by Facebook, unless Vendor elects to continue to perform all of its obligations under this Agreement, or (ii) if not delivered under (i), upon the rejection of this Agreement or any Orders by or on behalf of Vendor upon Facebook’s request.

4. **Survival.** The following Sections shall survive any expiration or termination of this Exhibit or the Agreement: 1 (Software License), 2 (Software Warranty) and 3 (Bankruptcy).

EXHIBIT B
FACEBOOK SOFTWARE SUPPORT AND MAINTENANCE TERMS

This Exhibit is an attachment to the Agreement and contains additional terms and conditions related to Vendor's provision of Support and Maintenance to Facebook. Any capitalized terms not defined herein shall have the meanings given in the Agreement.

Support and Maintenance for the Software consists of the following:

1. Vendor will provide all Upgrades no later than the date on which they become generally available. "**Upgrades**" means any and all upgrades, updates, enhancements, modifications, alterations, improvements, revisions, releases, and new versions of and to the Software.

2. Vendor will correct all problems that are reported by Facebook or of which Vendor otherwise becomes aware in accordance with the following:

Priority 1: The Software is not working, a significant function of the Software is not properly working, or a significant number of users are unable to access or use some functionality.

Response and Fix Time: Vendor will respond to and Vendor's senior engineers will commence efforts to fix Priority 1 problems no later than ***** after Facebook's report of such problem or Vendor's detection of such problem, whichever is earlier. Vendor will use best and continuous efforts, twenty-four (24) hours per day, seven (7) days per week to provide an acceptable work-around for the Priority 1 problem, and will provide a permanent fix for the Priority 1 problem no later than thirty (30) days after Facebook's report of such problem or Vendor's detection of such problem, whichever is earlier.

Priority 2: Functionality of the Software is impaired or some users are unable to access or use some functionality.

Response and Fix Time: Vendor will respond to and Vendor's senior engineers will commence efforts to fix Priority 2 problems no later than ***** after Facebook's report of such problem or Vendor's detection of such problem, whichever is earlier. Vendor will use reasonable and continuous efforts to fix Priority 2 problems during normal business hours, and if an acceptable work-around is provided, will provide a permanent fix of the Priority 2 problem no later than thirty (30) days after Facebook's report of such problem or Vendor's detection of such problem, whichever is earlier.

Priority 3: Low impact to users of the Software.

Response and Fix Time: Vendor will respond to Priority 3 problems within ***** after Facebook's report of such problem or Vendor's detection of such problem, whichever is earlier, during Facebook's regular business hours (or on the next business day, if the problem is reported outside of Facebook's regular business hours). Vendor will fix Priority 3 problems no later than thirty (30) days after Facebook's report of such problem or Vendor's detection of such problem, whichever is earlier, and if an acceptable work-around is provided, will provide a permanent fix of the Priority 3 problem in the next Upgrade.

The priority level of the problems reported by Facebook shall be determined by Facebook. If Vendor fails to comply with this Section in any given month, Facebook, at Facebook's option, will be entitled to (a) promptly receive a credit or refund of Support fees for the month of such noncompliance or (b) terminate Support and receive a refund of the prorated portion of any prepaid, unearned fees for Support.

3. Vendor agrees that Support will, include technical assistance and remediation for (a) the current release of the Software and (b) the two immediately preceding releases of the Software. A "**Release**" shall be designated by changing the first number in the version number, as in 4.x.y changing to 5.x.y.

4. Vendor will provide Facebook with Upgrades for the Software to enable the Software to operate on any new release of the underlying operating system software within one (1) months after the Upgrade is made generally available.

5. Vendor will, in accordance with industry best practice, maintain detailed and comprehensive contingency plans against events which could affect the ability of Vendor to provide Support in accordance with this Exhibit, including, without limitation, loss of production, loss of systems, loss of equipment, industrial relations problems with Vendor's or Vendor's subcontractors' personnel, failures in the supply chain, failure of carriers and the failure of Vendor's or its Vendors' equipment, computer systems or business systems.

6. Vendor will provide such additional technical assistance and remediation services to Facebook as Vendor may provide from time to time to its other customers of any of the Software.

**EXHIBIT C
PRICING TERMS**

This Exhibit is an attachment to the Agreement and governs the pricing of the Product(s) and Services provided by Vendor to Facebook pursuant to the Agreement. All capitalized terms not defined herein shall have the meanings given to them in the Agreement.

1. **Term.** Quarterly from purchase date.

2. **Product(s):** The license and pricing specified in this Exhibit for the Product(s) shall include but not limited to the following hardware products, modules and/or features:

- . *****
- . *****
- . *****
- . *****
- . *****
- . *****

3. **Pricing.** Annual ***** pricing included in 2018 Supply Commitment Agreement, Contract #XW1140385, dated Nov 8, 2017; Additional product pricing provided via quarterly quote upon request.

4. **Support and Maintenance.** Vendor shall provide Facebook with Support and Maintenance Services as specified in Exhibit B at no additional cost.

**EXHIBIT D
APPROVED BUYERS**

EXHIBIT E
QUALITY CONTROL PLAN

Quality Control Plan Document

Facebook Confidential



Quality Control Plan for Optical Transceivers at Facebook, Inc.

CHANGE CONTROL RECORD

REV	DATE	ACTION*	REASON
A	*****	NEW	NEW RELEASE

* NEW, ADD, DELETE, CHANGE AND REISSUE

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PREPARED BY:

NAME, TITLE, CONTACT	DATE
***** Supplier Quality Engineer-Optics and Networking Facebook, Inc. Tel: ***** Email: *****	*****

ISSUED BY:

NAME, TITLE, CONTACT	DATE
***** Supplier Quality Engineer-Optics and Networking Facebook, Inc. Tel: ***** Email: *****	*****

APPROVED BY:

NAME, TITLE, CONTACT	DATE
***** Manager, Supplier Manufacturing Quality Engineering Facebook, Inc. Email: *****	

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1 Scope

1.1 Purpose

The purpose of this quality control plan for optical transceiver is to define the generic requirements from any suppliers to support Facebook’s demand for existing and upcoming Facebook’s data center applications. The supplier should meet the requirements of the document. Otherwise the written document will be needed from Facebook’s source engineering team (SM, SQE and HW team).

1.2 Applicability

This document is applicable to Facebook’s programs involving fiber optic transceivers and fiber optic assemblies for data center hardware, and equipment.

2 References

The following references are listed here for tracking purpose.

Reference List			
Item	Document	Title	Rev.
1	*****	*****	*****
2	*****	*****	*****
3	*****	*****	*****
4	*****	*****	*****
5	*****	*****	*****
6	*****	*****	*****
7	*****	*****	*****
8	*****	*****	*****
9	*****	*****	*****
10	*****	*****	*****
11	*****	*****	*****
12	*****	*****	*****
13	*****	*****	*****
14	*****	*****	*****
15	*****	*****	*****
16	*****	*****	*****
17	*****	*****	*****
18	*****	*****	*****
19	*****	*****	*****
20	*****	*****	*****
21	*****	*****	*****
22	*****	*****	*****
23	*****	*****	*****

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3 Definitions and Acronyms

The terms and definitions are widely used in the optical industry. However, the follow acronyms and definitions are listed as reference

AQL:	Acceptable quality level
CAPA:	Corrective Action & Preventive Action
CLCA:	Closed Loop Corrective Action
CPK:	Critical Process Capability
DPPM:	Defective Parts Per Million
ER:	Extinction Ratio
FA:	Failure Analysis
FC-IP:	Fiber Channel-Physical Interface
FEC:	Forward Error Correction
FIT:	Failure in Time
*****:	Generic Reliability Assurance Requirements for Optoelectronic Devices
HMB:	Human Body Model
MSA:	Multisource Agreement
OMA:	Optical Modulation Amplitude
OQA:	Outgoing Quality Assurance
ORL:	Optical Return Loss Tolerance
ORT:	Ongoing Reliability Test
PCN:	Product Change Notice
PMD:	Physical Media dependent
PQP:	Product Quality Plan
QC:	Quality Control
RCA:	Root Cause Analysis
RMA:	Return Material Authority
SQE:	Source Quality Engineer
SM:	Source Manager
SPC:	Statistical Process Control

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SCAR:	Supplier Corrective Action Request
SFF:	Small form Factor (Optical Transceiver)
SFP:	Small Form Factor Pluggable (Optical Transceiver)
SLA:	Service Level Agreement
SMSR:	Side-Mode Suppression Ratio
SPQL:	Ship Product Quality Level
TDP:	Transmitter and Dispersion Penalty

4 Roles and Responsibilities

The role and responsibilities are defined in this section.

- A. This document is originated and maintained by Facebook's SQE.
- B. The supplier has full ownership for the quality and reliability on the optical transceivers purchased and shipped to Facebook. All optical transceivers should meet the requirements described in this document. This document is additional to SLA, which is maintained by Facebook's SM.
- C. The supplier should not ship any known defective optical transceivers to Facebook.

5 New Product Introduction

Product design should be planned, controlled, documented and updated per supplier's product development process. The supplier should notify Facebook on the engineering changes and its corresponding qualification plan before delivering products to Facebook. The critical failure mode, especially the early systemic failure mode should be notified to Facebook as soon as it is identified.

5.1 Design Considerations

Product functional and performance requirements including applicable statutory and regulatory requirements are identified, documented, and reviewed between supplier and Facebook's SM.

5.2 Product Cycle Process Control

The supplier should document design output in data that can be verified against design input requirements. Design output documents should be reviewed before release to Facebook. The following generic guidance should be applied, especially when Facebook initializes the new product requirements:

- Meets the design input requirements, possibly can be defined on SLA, maintained by Facebook's SM.
- Contains or references acceptance criteria.
- Provides appropriate information for purchasing, production, and service provisions to Facebook.
- Identifies those characteristics of the design that are crucial to the safe and proper functioning of the product. This should be notified to Facebook in the early stage to avoid any delay on the employment of the new products at Facebook's data center application.

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- The product change notice (PCN) will be notified and approved by Facebook if there is key components or process changes due to the field quality event or production yield. The ECO Release Procedure will be enforced per supplier's product cycle process.

6 Quality and Reliability Requirements

The optical transceivers should meet the quality and reliability requirements based on this document and the SLA, including the following, especially during the qualification process (compliance to *****):

- Supplier's PQP (Product Quality Plan) should be reviewed and approved by Facebook.
- Fab, Assembly, Package Process (including key component control process from third party) Control and Certification
- Quality and Operating Reliability through validated and agreed Test Process.
- Quality Issue Resolution, Failure Analysis and Application Support, and Response Times
- Failure Analysis Turn Around Time (TAT) Requirements
- DPPM and FIT rate data (overall FIT/DPPM data for all shipments break down into failing in 1st year, 2nd year and third year) should be shared with Facebook. Early failure mode should also be communicated with Facebook.

Quality and Reliability Test Requirements			
Test Item	Document	Test Condition	Sample Size
Mechanical Shock	*****	*****	*****
NonOperational Vibration	*****	*****	*****
NonOperational Temp. Cycling	*****	*****	*****
Operational Vibration Test	*****	*****	*****
Operational Shock	*****	*****	*****
Optical Connector Durability	*****	*****	*****
Electrical Connector Durability	*****	*****	*****
High Temperature Operating Life	*****	*****	*****
High Temp Storage	*****	*****	*****
NonOperational Damp Heat	*****	*****	*****
Flammability	*****	*****	*****
ESD (for any pin)	*****	*****	*****
ESD Air Discharge, Direct contact	*****	*****	*****
Laser Safety		*****	*****

For the long term reliability side, Facebook wants to have the following items to be validate in order to provide Facebook the early failure mode.

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Early Failure Mode Indemnification Test Requirements		
Test Item	Test Condition	Value
*****	*****	*****
*****	*****	*****
*****	*****	*****
*****	*****	*****

Facebook also the following requirements for all optical transceivers from suppliers. These marginal requirements will assure the best performance of optical transceivers used in our data center equipment. The Guard band of suppliers' test capability should be address upon the agreement on the product specs.

Special Requirements on these Parameters		
Parameter	Limits (compared with Agreed Spec)	Units
*****	*****	*****
*****	*****	*****
*****	*****	*****

7 Manufacturing assembly process and Test Coverage

The manufacturing (including testing process) process should be following same process that produces qualified units. Manufacturing process should be identical even if the manufacturing location changes. Test coverage should be developed during the qualification process. Any variation in the manufacturing and testing process should be communicated to Facebook and get Facebook's official approval. Typically:

- a. **The acceptable test coverage level needs to support the required overall DPPM/FIT Rate and to guarantee the performance of the products.**
- b. **All parameters listed in the agreed specification should tested according the supplier's test procedure (upon agreed by Facebook.) Removing any critical test from production test process for any reason needs Facebook approval.**

8 Production Quality Control Process

Supplier's PQP (Product Quality Plan) should be reviewed and approved by Facebook. The product change notice (PCN) will be notified and approved by Facebook if there is key components or process changes due to the field quality event or production yield issue. The ECO Release Procedure will be enforced per supplier's product cycle process. Supplier needs to address potential impact to Facebook purchased products if there any quality event, including those failures are not reported from Facebook.

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Production Quality Control Process		
Focusus	Requirements	Note
*****	*****	
*****	*****	
*****	*****	
*****	*****	
*****	*****	*****
*****	*****	*****
*****	*****	

9 Traceability

The supplier needs to make the traceability for the any product shipped to Facebook and its key component level. This will help Facebook prevent quality event at Facebook's data center. Supplier should provide Facebook with the traceability data within ***** upon request from Facebook's SQE.

Traceability for Optical Transceivers		
Focusus	Requirements	Note
*****	*****	
*****	*****	
*****	*****	

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10 Service Requirements for Failure Analysis, RMA process and TAT 10.1 Corrective Action Requirement

- Facebook reserves the right to issue a Supplier Corrective Action Request (SCAR) to the Supplier for any discovered non-conformity or failure.
- The Supplier shall have responsibility to determine root cause and corrective actions as deemed necessary to fix any cited non-conformities in the SCAR. These actions are to be reported to Facebook no later than ***** from receipt of the SCAR.
- A systematic methodology such as 8D shall be used to identify the root cause and appropriate effective preventive & corrective action. The results of this methodology shall be documented in the SCAR report.
- Facebook shall review the corrective actions implemented by the Supplier and approve or disapprove of their effectiveness within ***** after receiving complete 8D.
- Facebook reserves the right to request a site assessment to verify that the Supplier has implemented specific corrective actions and/or to validate the effectiveness of corrective actions implemented.
- Incoming product quality, error free documentation and proper packaging are the primary concerns. Facebook will communicate problems and return product fails to Supplier for failure analysis and corrective action.
- Facebook may also request appropriate data from the Supplier to help resolve quality issues.
- Supplier should make every effort to meet the ***** requirement. In some cases this requirement may be exceeded depending on the nature and complexity of the problem.
- 8D methodology is required for failure modes that appear to be systematic

10.2 FA and Critical Issue Containment

- For critical issues that affect Supplier's products used by Facebook, and discovered by Supplier, Supplier agrees to notify Facebook within ***** of the critical issue, scope & impact, Supplier's containment plan and mitigation strategy. Supplier will issue an 8D report to document root cause of the critical issue.

The final failure analysis (FA) report shall contain the following items as a minimum:

- Device information (Part name, number, date/lot code, quantity of failures, Facebook F/A tracking number , disposition of fail units etc.)
- Detail description of problem
- Test conditions, results and data
- Root cause
- Containment, corrective actions and verification of the implementation

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- In general, it should follow the 8D format or guidelines defined in ***** or equivalent process
- FA report should follow guidelines in ***** or equivalent process

10.3 ORT-On-going Reliability

· Supplier should have an ORT (on-going (monthly/quarterly) reliability) monitoring program for products of the same type-class or process as those used by Facebook.

1. Sample sizes and testing hours should be statistically significant and agreed by Facebook.
2. Supplier agrees to provide monthly summary reports of ORT programs to Facebook.

11 TAT Requirements for FA and RMA

The replacement unit should be sent back to Facebook within ***** after RMA ticket is issued. This requirement will keep Facebook data center with good unit and it has nothing to do with TAT for FA activities.

TAT (turn-around-time) is a key factor to measure the service quality of the supplier. The ***** standard is applied in this document. “Days” are cumulative working days. Supplier should make every effort to achieve the following cycle times. In some cases, the target for completed failure analysis may be exceeded when the problem is so complex that a detailed manufacturing investigation, such as a DOE is required. However, for critical situations such as line down, the initial response and preliminary FA should be delivered according to the above cycle time under all conditions. The following table will be used for generic guide line for TAT requirements.

Service TAT Rquirements		
Case Priority Level	Deliverables	Value
P1 Case- Critical	Receipt of failed units at supplier factory	*****
P1 case: Data center down, gating new product launch, potential field reliability impact	Initial Response with verification completion and communication	*****
	Preliminary FA Report/Communications	*****
	FA report with corrective and preventive action plan time line- 8D report	*****
	CLCA or CAPA if needed (Supplier correction action plan and possible ECO/ECN)	*****
	Total	Min
Note	Daily update is needed for the DOE, FA and swaping test process if the case can not be closed with *****	
P2 Case - Normal FA	Receipt of failed units at supplier factory	*****
Standard Process	Initial Response with verification completion and communication	*****
	Preliminary FA Report/Communications	*****
	FA report with corrective and preventive action plan time line- 8D report	*****
	CLCA or CAPA if needed (Supplier correction action plan and possible ECO/ECN)	*****
	Total	Min
Note	Update every two days is needed for the DOE, FA and swaping test process if the case can not be closed with *****	
P3 Case - Normal RMA	Receipt of failed units at supplier factory	*****
Standard Process	Initial Response with verification completion and communication	*****
	Preliminary repair Report/Communications	*****
	FA/repair report with corrective and preventive action plan time line- 8D report	*****
	CLCA or CAPA if needed (Supplier correction action plan and possible ECO/ECN)	*****
	Total	Min
Note	Update every two weeks is needed for the DOE, FA and swaping test process if the case can not be closed with *****	

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