CORNING

Optical Distribution Frame RFO
Versatile for today. Scalable for the future.

Demand for more bandwidth is exploding.

Is your optical distribution frame system ready?

As of June 2016, 3 billion kilometers of fibre cable were installed worldwide.[1] That's enough cable to circle the earth 75,000 times.

We're installing that cable at a dizzying pace, and as fibre has become a part of our everyday lives, it has become the media of choice for multiple types of networks, including long distance, core networks, metro loops, wireless backhauls, FTTx access and CATV networks, deep-fibre architecture for DSL last mile, and data centers. And we'll need more and more fibre cables as we develop fibre-rich/fibre-based applications and services we've yet to imagine.

[1] CRU International

What the next generation of ODF infrastructure must address

The ever-increasing demand for bandwidth will continue to strain fibre management capabilities and require more density and scalability for your inside plant fibre distribution frame infrastructure. To meet your service-level agreements, a sound multi-network optical distribution frame (ODF) strategy must include infrastructure that can:

- Provide a format expandable for future growth
- Simplify and increase patch-cord management and storage
- Improve adds and changes or eliminate mishandling of cabling assemblies leading to potential dB loss
- Migrate to future generation of transmission and aggregation systems by equipment

The ODF RFO meets this demand for more network capacity and reach, helping you meet the challenges that come with fibre management and migration to new technologies and equipment.

You can build the (ODF) system that conforms to your fibre-distribution requirements, with two RFO frame formats and two RFO chassis for optimal connectivity, management and scalability.

Optical Distribution Frame RFO:
A solution that adapts to your network requirements

Two frame options

RFO Frames – open frame and wall frame – give you outstanding interoperability capabilities between equipment or service-provider infrastructure locations (central office, headend, data center and remote points of presence, huts and shelters). It provides easy control over fibre cable elements from equipment or network and ample, orderly patch-cord management.
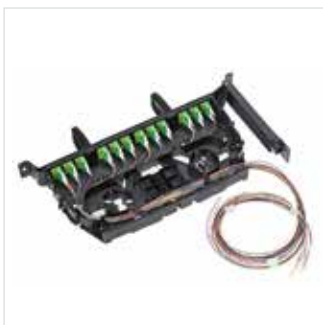
Modular blocks

RFO NG network cable head blocks and RFO NG interconnection blocks make ODF deployment and management operations between equipment and the network simple. They also improve ODF flexibility by supporting mix-and-match RFO NG Fibre Modules for specific network applications.

Plug & Play™ Modules

A wide range of RFO NG fibre modules provide for multiple applications, such as splice-on pigtails, adapters-only for connectorised simplex, multifibre patch cords or breakout assemblies, centralised or cascaded PLC splitter deployment, and xWDM module

Swiveling Patch Panels

RFO SD Swiveling Patch Panels provide density in confined spaces with element-at-a-time extension capabilities and a swiveling feature that provides full access to inner, rear, and lateral sides for easy and safe fibre management. Its lightweight plastic construction is noncorrosive, making it ideal for outdoor use.

RFO Frames

Open Frame: Easy-access architecture that keeps on growing

The RFO OF open frame is built for high-capacity growth — for scalability from 1,000 to more than 100,000 fibre points — making it ideal for consolidation and interface between the central office, headend or data center, and outdoor fibre networks. These single- or double-sided modular frames can be linked together for as large a system as your space will allow, maintaining superior cross-connection across the total lineup as it expands.

The open-frame architecture also helps eliminate access issues and the problems they can present. You maintain complete control over cables, patch cords, and accessories from all four sides of the frame for cabling and jumpering operations and control of slack, "kink," "banjo" and other bend radius issues.

RFO NG Open Frame Ordering Information		
Product Number	**Description**	**Reference Number**
UU001611944	RFO NG Fibre Distributor Frame 6 Levels, 2 m/6.56 ft	N711865A
UU001611951	RFO NG Fibre Distributor Frame 8 Levels, 2.50 m/8.20 ft	N711866A
UU001611936	RFO NG Fibre Distributor Frame 11 Levels, 3.25 m/10.66 ft	N711867A
UU001611928	RFO NG 12-Tray Fibre Cabling Block Left Hinge (modules on right)	N711842A
UU004220529	RFO NG 6-Tray Tray Fibre Cabling Block Left Hinge (modules on right)	N711886A
FQ100079976	RFO NG Splitter Block	N431080A
FQ100080099	RFO NG Module Splitter Block with 1 x 1:64 SC APC PLC splitter	N541152A
FQ100074704	RFO NG Fixation Kit for 8 breakout cables	N711584A
FQ100076006	RFO White Protection Tube D5X3, reel of 1,000 m	N581203A
FQ100084497	RFO White Protection Tube D5X3, reel of 25 m	N581207A
FQ100075792	RFO NG Clamp Kit Deecam D25 for 60 D5X3 protection tubes	N711597A
FQ100069241	RFO NG Clamp Kit Deecam D18 for 25 D5X3 protection tubes	N711547A

Wall Frame: Make the most of small spaces

The RFO WF wall frame is ideal for confined network infrastructure spaces where floor space is limited, such as points of presence, distribution hubs, shelters, huts, and technical rooms in residential or corporate buildings. Frames can be installed at a 90-degree angle to make the most of available wall space. Flexible and scalable, these frames come pre-installed on wall-mounting rails with additional modular plates as required.

RFO WM Wall Mount Ordering Information		
Product Number	**Description**	**Reference Number**
FQ100081287	RFO WM Wall-Mounting Frame Supporting Plate for 2 RFO NG fibre cabling blocks	N711705A
FQ100081329	RFO WM Wall-Mounting Frame Rail	N711703A
FQ100081311	RFO WM Wall-Mounting Frame Symmetrical Supporting Bar for Deecam clamp kit	N711780A
FQ100081279	RFO WM Central Supporting Bar for Deecam clamp kit	N711704A
UU003107826	RFO NG 12-Tray Fibre Cabling Block Right Hinge (modules on left)	N711874A
UU001611928	RFO NG 12-Tray Fibre Cabling Block Left Hinge (modules on right)	N711842A
UU004220552	RFO NG 6-Tray Fibre Cabling Block Right Hinge (modules on left)	N711894A
UU004220529	RFO NG 6-Tray Fibre Cabling Block Left Hinge (modules on right)	N711886A
FQ100076006	RFO White Protection Tube D5X3, reel of 1,000 m	N581203A
FQ100084497	RFO White Protection Tube D5X3, reel of 25 m	N581207A
FQ100069241	RFO NG Clamp Kit Deecam D18 for 25 D5X3 protection tubes	N711547A

RFO NG Modular Blocks

Stack them up one by one or six, eight or 11 at a time, as many as you need in your current ODF room. Then swivel open all swing-out trays to allow complete access to the entire inside block when you want to route new connectorised simplex or multifibre patch cords, breakout assemblies, or network cables.

RFO NG network cable blocks terminate multifibre cables from the outside network to the ODF. Using the RFO Deecam clamp kit, network cables are attached to the frame or rack, which fans-out the fibre and protection tubes. Tubes enter the rear of the block to a tray's slack storage area. Because up to 1.8 m of protective tube slack can be stored in each tray, RFO fibre modules can be removed from the frame or rack for service on the ground or workbench, limiting the risk of disturbing adjacent fibres.

When terminating cable from equipment to the ODF, RFO NG equipment interconnect blocks use simplex patch cords for incremental connection. For mass connection deployment, breakout cables or multifibre patch cords may be used. As with the cable head block, this block reduces the strain placed on patch cords when swing-out trays are opened.

Both RFO NG modular blocks are available in 48/72 (six trays) or 96/144 SC (12 trays) fibre terminations and are compatible with all RFO frames. The blocks can swivel one swing-out tray at a time to allow access to the pigtails, adapters, splitters, and other fibre components inside the module.

RFO NG Fibre Modules

Mix and match RFO NG fibre modules to configure the best system for your growing networks. No tools are required; each module simply snaps into place.

Splice-On-Pigtail Modules

Designed to help factory-installed/factory-tested pigtails to be spliced with individual fibres of a 12- or 24-fibre cable. Splice-on-pigtail modules come in the following configurations:

- 12 SC/24 LC modules
- 8 SC/16 LC modules
- High-density 18 SC modules
- Symmetrical 12 SC/24 LC modules to be used with RFO NG blocks in RFO WF wall frames

Breakout or Adapter-Only Modules

Used with connectorised fibre cable assemblies, such as breakout cables or multifibre patch cords, these modules enable the incremental provisioning of new fibre elements at the ODF.

- Factory-installed/factory-tested 12 SC or 24 LC adapters
- Slack storage up to 2 mm or 900 µm fibre cable assemblies

Interconnection Module

Interconnection module is used as a pass-through-only module through the module's open front side for a breakout cable or multifibre patch cord to directly interconnect with another RFO NG modular block at the ODF.

PLC Splitter Modules

RFO NG splitter modules can be used for centralised or cascaded splitter deployment in FTTH GPON networks and accommodate a full array of splitters with splits ranging from 1:2 to 1:64 for any ODF deployment location. Splitters with 2:x splits can be incorporated for OTDR testing and new FTTH services such as XG-PON and NG-PON2.

- Factory-installed/factory-tested assembly
- 250 µm and 900 µm fibres
- Accommodates 1:2, 2:2, 1:4, and 1:8 splitter combinations, supports splice-on input trunks, and splitters with connectorised input and output trunks
- Large-capacity PLC splitter chassis available for 1:16, 1:32, and 1:64 splitter modules

WDM Modules

Independent from equipment evolution and service lifetime, the RFO optical distribution system makes it possible to transition from GPON to XG-PON and NG-PON2 with very minimal re-engineering at the ODF (extension, additional cables, and swapping of new WDM modules). The RFO WDM modules can incorporate:

- WDM modules and PLC splitters
- WDM1r and/or WDM CEx modules

RFO NG Modules Ordering Information

Product Number	Description	Reference Number
Splice-On-Pigtail Modules		
UU001611969	RFO NG Splice-On-Pigtail Fibre Module, 12 SC APC, green color pigtails, G657A2	N541230A
UU001611985	RFO NG Splice-On-Pigtail Fibre Module, 12 SC APC, red color pigtails, G652D	N541229A
FQ100081063	RFO NG Splice-On-Pigtail Fibre Module, 12 SC UPC, G652D	N541181A
FQ100080263	RFO NG Splice-On-Pigtail Fibre Module, 12 LC APC, G652D	N541174A
FQ100078804	RFO NG Splice-On-Pigtail Fibre Module, 12 LC UPC, G652D	N541153A
Splice-On-Pigtail Modules - Symmetric		
FQ100082426	RFO NG Splice-On-Pigtail Fibre Module — Symmetric, 12 SC APC, G652D	N541193A
UU003107818	RFO NG Splice-On-Pigtail Fibre Module — Symmetric, 24 LC APC duplex, green color pigtails, G652D	N541232A
FQ100082376	RFO NG Patch Cord and Label Holder for Splice-On-Pigtail Fibre Modules - Symmetric	N671317A
Breakout or Adapter-Only Modules		
UU001611993	RFO NG Breakout/Adapter-Only Fibre Module — 12 SC/APC	N541231A
FQ100080859	RFO NG Breakout/Adapter-Only Fibre Module — 12 SC/UPC	N541177A
FQ100078812	RFO NG Breakout/Adapter-Only Fibre Module — 12 LC/UPC duplex	N541154A
Breakout or Adapter-Only Modules - Symmetric		
UU001646593	RFO NG Breakout/Adapter-Only Fibre Module — Symmetric, 24 LC APC duplex	N541233A
Interconnection Modules		
FQ100076444	RFO NG Interconnection Fibre Module	N541135A
PLC Splitter Modules		
FQ100076451	RFO NG Splitter Module, 1x1:8 SC APC	N541136A
FQ100076477	RFO NG Splitter Module, 4x1:2 SC APC	N541138A
FQ100079612	RFO NG Splitter Module, 6x1:2 SC APC	N541158A

RFO SD Swiveling Patch Panel

When density is vital but space is limited, the RFO SD high-density swiveling patch panel gives you more flexibility to move, add, and change with your network. Its 19-in standard width adapts to most environments.

Swivel access without disruption

Right- or left-swiveling panels give you full access to inner, rear, and lateral sides for cable management without exposing active fibres on adjacent panels or interrupting service. The swiveling innovation can help reduce cable wear and offers strain-relief of patch cords to limit mechanical tension on adapters that can create damaging dB loss and service issues.

Lightweight, non-corrosive plastic housing

Each molded plastic mono-block panel is lightweight for easy transportation and installation. RFO SD patch panels help prevent corrosion and are more resistant to condensation than metal housing, for better cable protection in humid environments. To eliminate the inconvenience of removing and reinserting coupling dust caps, RFO SD swiveling patch panels can be equipped with RFO clear dust caps.

Stackable for improved density

The RFO SD patch panel is fully stackable one at a time for a denser fibre cable confirmation. A separate fibre tray (for separation of 250 µm fibre or 250 µm PLC splitter housing) can be added. It accommodates various splice holders for both Fibrlok® mechanical splice and industry heat-shrink sleeves.

Easy scalability

For the best scalability, proper routing of network and equipment fibre cable assemblies and management of the cross-connection patch cords is essential. The RFO SD handles network cables, breakout cables, or multi-fibre patch cords. Cables can be attached to the RFO DEECAM clamp kit, and two front and one lateral ring allow the panel to swivel easily and securely, even with a full load of patch cords.

Multiple applications and configurations

Perfect for small POPs in shelters, outdoor remote FDH cabinets, or anywhere you must make the most of the available space, the RFO SD swiveling patch panel supports multiple applications and configurations.

Access/local loop network cable termination breakout cable and multifibre patch cords for active equipment termination.

- SC and LC connectivity
- 1RU, 2RU, and 3RU sizes
- 250 µm and 900 µm pigtails
- Stubbed patch panel upon request

RFO SD Swiveling Drawer Ordering Information

Product Number	Description	Reference Number
RFO SD 1U		
UU004891535	RFO SD Swiveling Drawer 1U with 12 pigtails, SC APC, left hinge, orange color code	N431130A
UU008170498	RFO SD Swiveling Drawer 1U with 12 pigtails, SC APC, left hinge, IEC color code grade B	N431146A
UU008015271	RFO SD Swiveling Drawer 1U with 24 pigtails, SC APC, left hinge, orange color code	N431110A
UU003166632	RFO SD Swiveling Drawer 1U with 48 pigtails, SC APC, left hinge, orange color code	N431114A
UU008177741	RFO SD Swiveling Drawer 1U with 48 pigtails, SC APC, left hinge, IEC color code grade B	N431147A
UU003133996	RFO SD Swiveling Drawer 1U with 48 pigtails, SC APC right hinge, orange color code	N431113A
UU004897177	RFO SD Swiveling Drawer 1U with 12 pigtails, LC APC, left hinge, IEC color code	N431117A
UU004246409	RFO SD Swiveling Drawer 1U with 48 pigtails, LC APC, left hinge, IEC color code	N431115A
UU004246722	RFO SD Swiveling Drawer 1U with 1x32 LC APC splitter, left hinge, IEC color code	N431116A
UU008972422	RFO SD Swiveling Drawer 1U with 24 pigtails, SC APC, right hinge, orange color code	N431148A
UU009394915	RFO SD Swiveling Drawer 1U with 36 pigtails, SC APC, right hinge, orange color code	N431111A
UU008032979	RFO SD Swiveling Drawer 1U, 24 ports, SC APC, right hinge breakout (without pigtails)	N431142A
UU009126523	RFO SD Swiveling Drawer 1U, 48 ports, SC APC, right hinge breakout (without pigtails)	N431152A
UU009542091	RFO SD Swiveling Drawer 1U, 48 ports, SC APC, left hinge breakout (without pigtails)	N431137A
UU008323386	RFO SD Swiveling Drawer 1U with 1x32 SC APC splitter, left hinge, orange color code	N431131A
UU009065747	RFO SD Swiveling Drawer 1U with 2x32 SC APC splitter, left hinge, orange color code	N431153A
UU008750596	RFO SD Swiveling Drawer 1U with 1x32 SC APC splitter, right hinge, orange color code	N431135A
RFO SD 2U		
UU006080921	RFO SD Swiveling Drawer 2U with 72 pigtails, SC APC, left hinge, orange color code	N431132A
UU004373724	RFO SD Swiveling Drawer 2U with 96 pigtails, SC APC, left hinge, orange color code	N431112A
UU008750570	RFO SD Swiveling Drawer 2U with 1x64 SC APC splitter, left hinge, orange color code	N431133A
UU008750588	RFO SD Swiveling Drawer 2U with 1x64 SC APC splitter, right hinge, orange color code	N431134A
RFO SD 3U		
UU004891543	RFO SD Swiveling Drawer 3U with 144 pigtails, SC APC, left hinge, orange color code	N431109A
UU007740481	RFO SD Swiveling Drawer 3U with 144 pigtails, SC APC, right hinge, orange color code	N431108A

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