BROCHURE

Infinera XTM Series

Innovative Packet Optical Networks from Access to Core

The Infinera XTM Series packet optical networking platform delivers high-performance metro access, metro aggregation, and metro core networks with industry-leading capabilities in areas such as power, density, latency, and synchronization across Layers 0 to 2.5.

Whether used to push WDM all the way up to the antenna or to the cell site in mobile networks, to connect enterprises together or to the cloud, or to deliver high-speed residential broadband services, the XTM Series provides all the capabilities needed to meet your requirements for a flexible and future-proof metro network.

Supporting Layer 0 optical wavelengths to Layer 2.5 MPLS-TP and using technologies such as Ethernet, OTN, SDH/SONET, Fibre Channel, and Intelligent WDM (iWDM®), the XTM Series builds on key design philosophies such as low power, high density, and a high level of scalability.

Most recently, we have extended the XTM Series with 400 Gb/s optics, a fully flexible-grid optical layer, and SDN control via Infinera's Transcend Software Suite. We are now bringing XR optics intelligent coherent pluggables into the XTM Series to provide scalable, flexible, and highly efficient transport and aggregation over point-to-point and point-to-multipoint configurations in both fiber-pair and single-fiber networks.

Scaling beyond 400 Gb/s, the XTM Series supports open networking principles and higher-speed DWDM at both 600 Gb/s and 800 Gb/s via open transponders from Infinera's GX Series.

Mobile xHaul and Auto-Lambda – Innovations Supporting Mobile and Access Networks

The XTM Series offers a multitude of unique capabilities that make the platform ideal in a number of key applications.

Examples include:

- Superior low-latency and synchronization capabilities that are vital in mobile backhaul, especially as mobile operators roll out 5G xHaul networks
- Auto-Lambda, enabling scalable access networks that are easy to install and configure, making them ideal for fiber-deep access applications, such as 5G in mobile networks or DAA in cable networks
- Fully hardened networking portfolio from Layer 0 to Layer 2 for amplified DWDM access networks
- iSFPs enabling transparent delivery of SDH/SONET services over a packet optical architecture, and eventually a smooth migration of legacy TDM networks to a common Ethernet/TDM network that fulfills strict synchronization and availability requirements
- True Layer 1/Layer 2 (FEC, OTN transport, MPLS-TP, long-reach optics) all on one blade

AN INNOVATIVE PACKET OPTICAL METRO NETWORK

- Industry-leading key metro capabilities
- From customer premises to 400G core
- Enabling revolutionary point-to-multipoint optical architectures
- Cost-optimized for your application

TM-102II

19", ETSI, 23" 1RU, one full-sized slot/ one half-sized slot

TM-301

19", ETSI, 23" 3RU, up to four full-sized slots/ four half-sized slots

TM-3000IIE

19", ETSI, 23" 11RU, up to 17 full-sized slots/ 10 half-sized slots

High Density + Low Power = Lower Cost

The XTM Series has a heritage of compact, low-power products and solutions, fitting ideally in metro deployments or remote access sites where space is scarce and expensive. Single-slot transponders and muxponders are successfully combined with ROADMs and/or packet optical transport switches (EMXP) in configurations that prove our leading density and low-power capabilities for both Layer 1 optical and Layer 2 Ethernet services. For example, our 200G/400G solutions draw less than 20 W per 100 Gb/s service – a figure that we believe is the lowest among comparable multi-service packet optical platforms.

Add to this the XTM Series' wide range of chassis options, from small 1RU chassis to large 11RU chassis, and it becomes even easier to right-size your network, matching your requirements for low power as well as space.

HIGH DENSITY DESIGN

LOW POWER DESIGN

The XTM Series Is Ideal in a Broad Range of Network Applications

- 5G xHaul mobile transport
- Residential PON/DSL backhaul
- Business Ethernet services
- Enterprise services
- Access/metro/regional networking
- Wholesale services

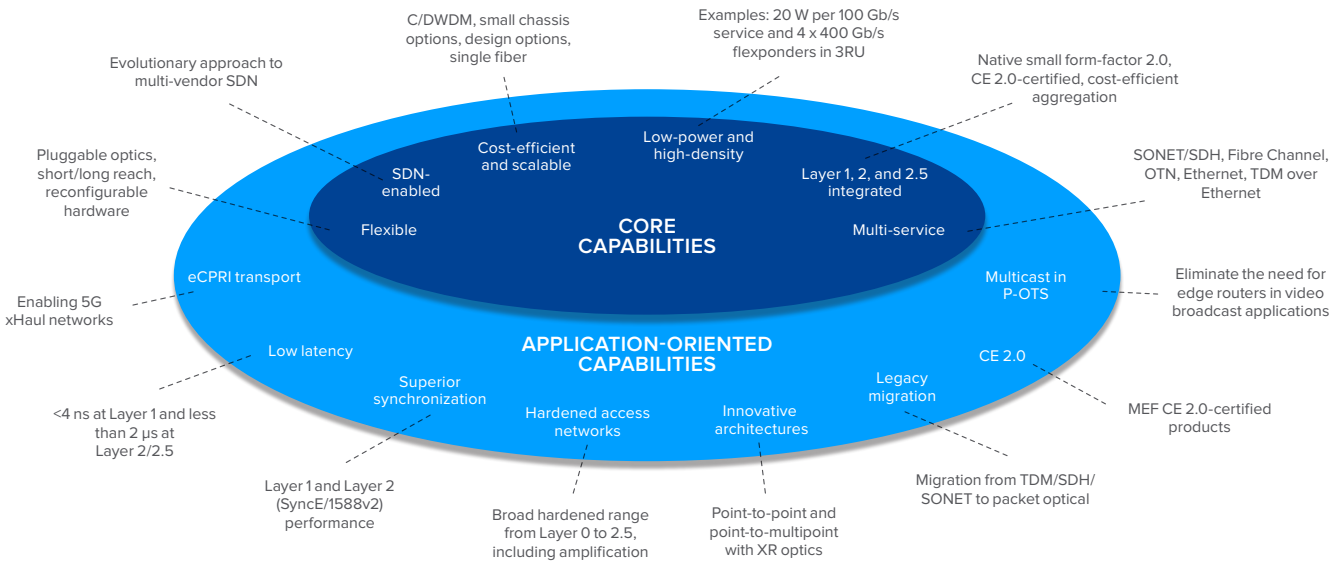

Figure 1: Outstanding metro capabilities

XTM Series Products

The next page shows a selection of the Infinera XTM Series products. Please contact your Infinera sales representative for a full product range overview.

MUXPONDERS		
10G	MS-MXP/10G	10 client port multi-service muxponder. SDH/SONET, Ethernet, SAN, etc. Multiple traffic images. FEC on line. Dual line ports for 1+1 line protection.
	MXP10GOTN	10 client port OTU2 muxponder. STM-16/OC-48, GbE, 1G/2G/4G FC. GFEC and EFEC on line.
100G	MXP100GOTN	10 client port coherent CFP-based OTU4 muxponder. STM-64/OC-192, OTU2, OTU2e, 10 GbE LAN, 8G FC in any mix.
200G	MXP200GOTN	14 client port coherent CFP2-based OTU4 muxponder supporting up to 20 client services. 10/100GbE-LAN, STM-64/OC-192, OTU2/OTU2e/OTU4, 8/16/32G FC.
TRANSPONDERS		
10G	TPMRHEX-Lite	6 x transparent transponders on a one-slot unit. 614 Mb/s to 14 Gb/s; see data sheet for details.
	TPHEX10GOTN	6 x OTU2/OTU2e transponders on a one-slot unit. 10 GbE, SDH/SONET, OTU2, OTU2e, 8G FC.
	FHAU	12 client port fronthaul flexponder. 10 GbE-WAN, 10G eCPRI.
100G	TP100GOTN	Coherent CFP-based 100G transponder. OTU4, 100 GbE-LAN.
200G	FXP400GOTN	Dual 200G coherent CFP2-based transponder/muxponder on a one-slot unit. Supporting up to 4 x 100G clients over 2 x 100G or 200G wavelengths. OTU4, 100GbE-LAN.
400G	FXP400G-E	400G coherent CFP2-based transponder/muxponder on a one-slot unit. Supporting up to 4 x 100G clients or 1 x 400G client over a 400G wavelength. OTU4, 100 GbE-LAN, 400 GbE-LAN
Layer 2		
1G, 10G	EDU	Ethernet Demarcation Unit. MEF9 + MEF14-certified. Multiple product models available; see data sheet for details.
1G, 10G, 100G, 200G	EMXP/IIe, EMXPIII, EMXP XH800, HDEA	Packet optical transport switch up to 1600G. CE 2.0, MEF9 + MEF14-certified; MPLS-TP, Sync-E, 1588v2. Multiple product models available; see data sheets for details.
10G, 100G	PT-Fabric	Packet optical transport switch with frontplane-connected interface modules for 10G and 100G services; see data sheet for details.
ROADMs		
	1x2 ROADM	2-degree ROADM, 50/100 GHz.
	1x4 Flexgrid ROADM	4-degree ROADM, fully flexible grid with manageable channel width and central frequency.
	1x9 Flexgrid ROADM	9-degree ROADM, fully flexible grid with manageable channel width and central frequency.
MISCELLANEOUS OPTICAL NETWORKING EQUIPMENT		
CWDM/ DWDM		Wide range of mux/demux/OADM units to support up to 80-/40-channel DWDM and eight-channel CWDM over dual/single fiber(s).
Amplifiers	OA-RAED, OA26C	Raman/EDFA hybrid amplifier, power extender C-band.
	OA17, OA20, OA21	Several EDFA amplifier models available with different gain characteristics, including hardened EDFA.
VOA Units	VOA-8CH, VOA-2CH	Eight-channel (using VOA-SFP) and two-channel variable optical attenuators.
Power Meters	OCM	DWDM/CWDM optical channel monitoring units.

Infinera