18

XOTN Chassis Unit

This chapter provides details about the XOTN chassis—its specifications and features.

The XOTN chassis unit is a part of the XOTN system. This system allows you to use IxNetwork protocols and scalable data plane test capabilities to test Optical Transport Network (OTN) devices. It provides flexible mapping of Ethernet frames to different OTN rates and structures according to ITU-T G.709.

Each system comprises an XOTN chassis unit, a USB cable, power cord, CFPs, and software. The XOTN ports are configured and managed by the IxNetwork application and can be used with any XM K2 load module (40Gb/s or 100Gb/s).

To test OTN devices, you must connect the XOTN chassis unit to a load module on the Client side, a DUT on the OTN side, and an XM chassis to centrally manage the XOTN chassis units using IxNetwork. Refer to *XOTN Installation Guide* for installation information and the online help for configuration information.

An XOTN system allows you to convert a 40Gb/s or 100Gb/s Ethernet signal to an Optical Channel Transport Unit (OTU3 or OTU4) signal and vice versa. On the Transmit side, XOTN can generate a PRBS pattern or transmit an Ethernet client signal from IxNetwork. The XOTN chassis unit converts the Ethernet traffic into an OTU3 (43.01Gb/s) or OTU4 (112Gb/s) signal; then transmits it to your OTN DUT. On the Receive side, XOTN receives OTU3 or OTU4 signals from your OTN DUT, converts the signal to 40Gb/s or 100Gb/s Ethernet, then transmits the received traffic to IxNetwork for further analysis. This means you can perform all IxNetwork Ethernet tests on your OTN enabled DUT. You also get detailed OTN statistics on the traffic passing through the XOTN unit.

About OTN Technology

The Optical Transport Network (OTN) emerged in the late 1990's as a "digital wrapper" around client signals before they are transported over a WDM (Wavelength-division multiplexing) network. Since then, the amount of traffic, particularly data and video, has increased significantly, placing higher demands

on the edge and core networks. This has been a major driver for the IP-optical integration. There is now an increasing need for a technology to replace the performance monitoring and fault-handling characteristics of SONET/SDH.

The OTN with G.709 framing has emerged as a way to add management capabilities directly to wavelengths. Using this technology, a client signal can be mapped directly into an optical network rather than requiring costly protocols, such as SONET/SDH, to provide the administrative functions.

The XOTN chassis unit is shown in the following figure:

Figure 18-1. XOTN Chassis

The Part Number of XOTN chassis is 941-0030.

Specifications

XOTN Chassis Unit

The XOTN chassis unit specifications are contained in *Table 18-1*.

Table 18-1.   XOTN Specifications

⚠	**Caution–Battery replacement** There is danger of explosion if battery is incorrectly replaced. Do not attempt to replace the battery. Return to Ixia Customer Service for replacement with the same or equivalent type of battery. Ixia disposes of used batteries according to the battery manufacturer's instructions.
Physical	
Size	• Width: 441.8 mm (17.394") • Height: 88.1 mm (3.469") • Depth: 500 mm (19.685")
Weight	11.5 kg (25.3 lb)
Environmental	
Operating Temperature	5°C to 35°C (41°F to 95°F)
Location	Indoor use only
Power	Maximum: 5A@115Vac 3A@230Vac
AC Voltage	90 ~ 264Vac, Full Range Input Mains supply voltage fluctuations not to exceed +/- 10% of specified nominal voltage. Transient overvoltages are specified by Installation category II.
Frequency	47 ~ 63Hz