

CX180R-IGM

CATV Return Path Monitoring System



2008 Global Test & Measurement
Emerging Company of the Year Award

Product Highlights

- 10 monitoring ports in one 1U 19" rack mount unit
- Up to two dedicated test heads for continuous ingress scan of all ports
- Up to two independent test heads for spectrum or return path analysis
- Ingress scan detecting fast transient noise that affects return path
- Spectrum analysis from 5 to 65 MHz, -40 to +55 dBmV
- Return path QAM 16/64/128 analysis with constellation
- Works with CX120 USG for detailed return path QAM 64/128 analysis
- 100-T Ethernet interface to CX180R Server and Controllers
- Secured access to prevent unwanted intrusion
- Cost effective solution for small headend deployment
- Easy system expansion without system shut-down



Specifications

Interface

• RF Input

Connector – 10 ports	F type, female, 75 ohm
Frequency range	5 to 1000 MHz

• Control Ports

Serial Port	RS232, DB-9, Female
Ethernet	10/100-T, RJ45

Ingress Monitor

Frequency range	5 to 65 MHz
Level range	-40dBmV to +10dBmV (20dBuV to +70dBuV)
Level accuracy	+/- 2dB typical
Amplitude resolution	0.1dB
Resolution Band Width	125, 330, 1000 KHz
Frequency resolution	65 KHz
Dwell Time	10us to 100ms
Scan sample rate (5 to 65MHz @ 1MHz RBW with 2 test heads)	100ms

Return Path Analysis

QAM modulation	16/64/256 QAM
Digital channel lock range	-10dBmV to +50dBmV (50dBuV to +110dBuV)
Symbol rate	1.28, 2.56, 5.12 MHz
MER range	21 to > 40 dB, +/- 2dB typical
Pre and Post BER range	1.0×10^{-9} to 9.0×10^{-3}
Parameters	QAM power level, MER, Pre/Post BER, Constellation diagram

Spectrum Analysis

Frequency range	5 to 65 MHz
Level range	-40dBmV to +55dBmV (20dBuV to +115dBuV)
Level accuracy	+/- 2dB typical
Attenuation	0 to 40dB @ 10dB / step
Amplitude resolution	0.1dB
Resolution Band Width	125, 330, 1000 KHz
Frequency resolution	65 KHz
Dwell Time	10us to 100ms

General Specifications

Size	320mm (W)x300mm(D)x38mm (H)
Weight	Less than 3Kg
AC adaptor	Input: 100-240VAC, 50-60Hz Output: 15VDC, 3.5A
Operating Temperature	-10°C to +50°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 95% non-condensing

Ordering Information

Z02-00-005P	CX180R-IGM Return Path Analyzer and Ingress Monitoring System
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Interfaces/Test Options

499-05-076	Return Path QAM Analysis Option (per IGM)
499-05-077	CX180R-Sever Software
499-05-078	CX180R-Master Software

Annual Maintenance Contract - after the first year (server provided by customer)

499-05-079	Software Maintenance per IGM, between 1 to 99
499-05-080	Software Maintenance per IGM, between 100 to 499
499-05-081	Software Maintenance per IGM, between 500 to 999
499-05-082	Software Maintenance per IGM, for 1,000
499-05-083	One Year Maintenance for CX180R-Master Software

Replacement Items

A01-00-002G	AC Adaptor (3-prong adaptor)
F04-00-004G	Power Cord - US 2 m (6 ft)
F04-00-005G	Power Cord - EU 2 m (6 ft)
F04-00-006G	Power Cord - UK 2 m (6 ft)



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