



MCD7500 Multi-Carrier Demodulator

The MCD7500 is ST Engineering iDirect’s wideband multi-carrier demodulator. It is designed specifically for wideband operation on the Dialog platform. The MCD7500 is a state-of-the-art satellite demodulator that supports multiple return technologies including MF-TDMA 4CPM, SCPC, Mx-DMA High Resolution Coding, and Mx-DMA Multi-Resolution Coding. The MCD7500 is used in Dialog Baseband Hub Modules as part of the 1IF, 4IF and XIF Hubs.

Network Configuration

Mx-DMA Multi-Resolution Coding

Modulation	QPSK, 8PSK, 16APSK, 64APSK
Carrier Options	100 kspcs to 100 Msps
Processing Bandwidth	105 MHz
Data Throughput	400 Mbps
Number of terminals	Up to 5000 active terminals

SCPC and Mx-DMA High Resolution Coding

Modulation	VLSNR(3), QPSK, 8PSK, 16APSK, 32APSK
Carrier Options	Up to 12 carriers in range 0.12 - 68Msps Up to 24 carriers in range 0.03 - 20Msps
Processing Bandwidth	72 MHz
Data Throughput	216 Mbps

MF-TDMA 4CPM

Modulation	4CPM
Carrier Options	0.128 to 4 MHz
Number of Carriers	144 (2)
Processing Bandwidth	40 MHz
Data Throughput	50 Mbps

DIALOG



Interfaces

Satcom Interfaces

Frequency	950 - 2150 MHz
Connector	BNC (75 Ohms) N (50 Ohms)
Return Loss	>+12dB
Max Aggregated input Power	-10dBm
Input Noise density	-130dBm/Hz to -100 dBm/Hz
Carrier Signal To Noise Ratio	-10 to 20 dB

Data Interfaces

2 x RJ45

Management Interfaces

2 x RJ45 (HTTP/SNMP v2c)

Management

Monitor and Control Interfaces

M&C connectivity via separate Ethernet links
Web server GUI (HTTP) via web browser
Diagnostics report, alarm log (HTTP)
SNMP v2c

Mechanical & Environmental

Dimensions	Height: 1RU, Width: 19", Depth: 51 cm
Weight	6.5 kg (lbs)
Operating Temperature	0°C to +50°C /+32°F to +122°F
Storage Temperature	-40° to +70°C /-40°F to +158°F
Humidity	5% to 85% non-condensing
Power Supply	90-130 & 180-260 Vac, 125 VA, 47-63 Hz or 36-76 VDC, 160 W