

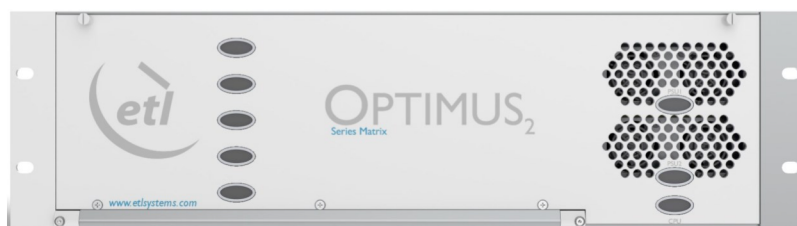


Model Number: OPT-20

RF Engineering
and Custom Build

Optimus L-band Matrix Router

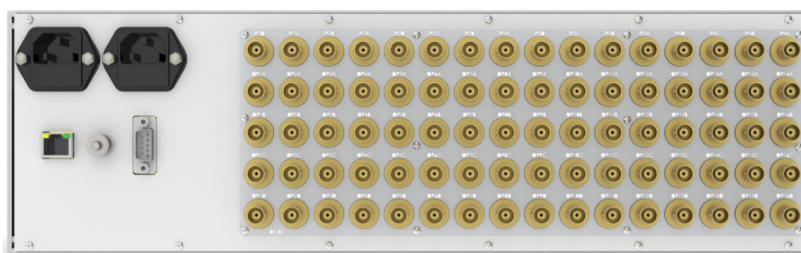
Configurable as quad 4 x 16, dual 4 x 32 or single 4 x 64 matrices with remote PC and IRD control



Front View of Model OPT-20 Optimus Matrix

ETL's new Optimus matrix provides compact form factor, flexible configurations, hot-swap of active components, and remote control via a PC and / or from IRD's via 13/18V 22KHz tone.

The matrix comprises 4 RF switch cards plus an input module which are combined to provide a shelf with quad 4x16, dual 4x32, or a single 4x64 matrix in a 4U high 19" shelf.



Rear View of Model OPT-20 Optimus Matrix

The RF modules can be hot-swapped, as can the dual redundant PSU's and CPU.

Optimus also provides LNB Powering which can be remotely (via Ethernet port) set to 0/13/18V with 22KHz tone. LNB current monitoring can also be done via the Ethernet port. A dry contact alarm port is provided on the rear panel for PSU failure.

Key Features

- Configurable as quad 4 x 16, dual 4 x 32 or single 4 x 64 matrices
- Dual Redundant Hot-Swap PSU's
- Hot-swap CPU card
- Hot-swap RF modules
- Remote PC & IRD control
- 13/18V LNB Powering & 22KHz tone
- Ethernet monitoring & control
- Dry contact alarm port for PSU failure





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Technical specifications and operating parameters

RF Parameters		
Routing	Distributive, non-blocking.	Any input can be connected to any number of outputs.
Capacity	1x Input Card & up to 4x Output cards	Expandable to 4x16, 4x32, 4x48 or 4x64
Frequency Range	850-2150 MHz (L-band)	
Gain	0 ± 2.0 dB	Mean across band
Gain vs. Frequency Flatness	± 2.5 dB	
P1dB (Output)	+3 dBm	
Noise Figure	25 dB	Typical
Group Delay	≤1.0 ns	Pk-pk, any 60MHz segment
Input Return Loss	10 dB min	All RF Ports
Output Return Loss	10 dB min	All RF Ports

Environmental	
Operating temperature	0 to 45°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	20 to 90% non-condensing

System Control	
Remote Control	Via RS232/485 serial port or Ethernet. 10/100 Base T. TCP/IP, SNMP or IRD voltage.

Power		
AC Consumption	150W max consumption	
AC Power	85-265Vac, 47-63Hz,	Fused 2A
LNB	13V/18V/22KHz.	350mA max on each input.
PSU	Dual redundant	Dual mains inlets
Hot-swap PSU	Yes	

Physical	
Inputs	50 or 75Ω, BNC, SMA or F-type connectors.
Outputs	50 or 75Ω, BNC, SMA or F-type connectors.
Dimensions	3U high x 500mm x 19" wide
Weight	6 kgs
Colour	White 00-E-55 semi-gloss

Key Features	
Single, Dual or Quad Matrix	
Hot-swap RF and CPU modules	
Dual redundant, hot-swap power supplies	
LNB Powering 0/13/18V DC & 22KHz Tone	
Remote Control via Ethernet port, serial port, or 13/18V DC & 22KHz tone on/off on RF output ports	
LNB current monitoring	
Dry contact alarm port for PSU failure	