



# Model Number: 22302-COM21-Gx-Sy

## 32 x 2-way Active Combiner Shelf for Matrix Systems

With hot-swap CPU, dual redundant power supplies & RF Modules

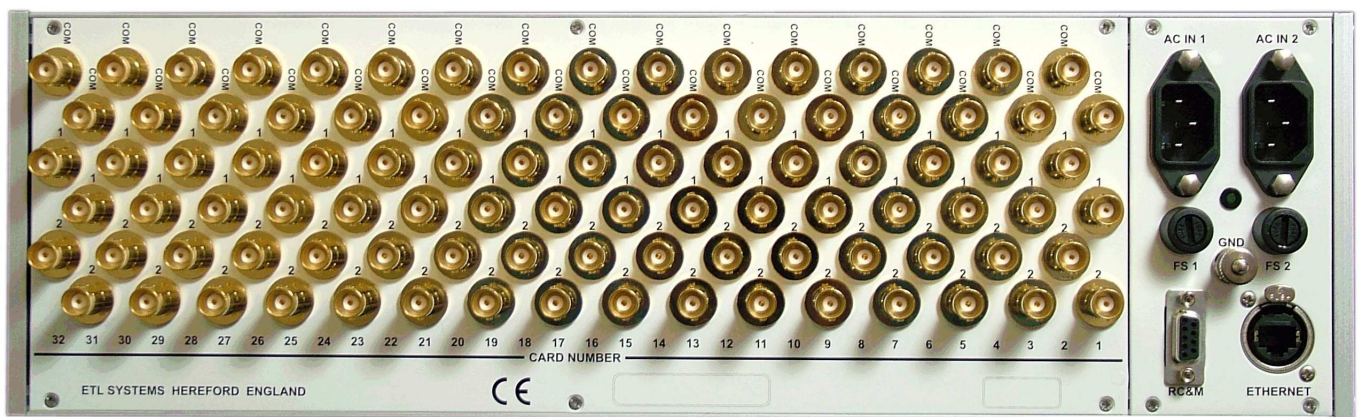


Front View of  
Model 22302-COM21-Gx-Sy

This modular matrix combiner system holds up to 32 single active combiner modules in a 3U high chassis. The unit is designed to link ETL's range of matrices to make bigger matrix systems, while saving rack space and offering excellent RF performance. This system has been designed with resilience in mind.

Resilience is provided via hot swap combiner modules, hot swap dual redundant power supplies, and a hot swap CPU. Matrix system RF performance can be optimized by factory setting of the Gain (Gx) and Slope Compensation (Sy); either to meet system RF requirements or to compensate for cable losses.

Remote Monitoring of the system can be done via the serial and Ethernet ports on the rear panel. This unit also includes Web Browser Interface as standard. Each RF module has an LED which provides simple local status monitoring.



Rear View of Model 22302-COM21-Gx-Sy

This unit is available in a variety of impedances and connector types. ETL also offer a Splitter version of this system (model numbers will vary).





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RF Engineering and Custom Build

## Technical specifications and operating parameters

RF Parameters (Combiner Modules)			
Capacity		Up to 32 Combiner Modules (16	
Frequency Range		50-200MHz (IF) &	
Gain		x ± 1 dB (nominal at 2150MHz) x = 0 to + 10 dB *	
Slope		y dB positive slope over 850- y = 0 to + 6 dB *	
Flatness	850MHz-2150MHz	± 0.50 dB	CF Slope Selection
	Any 36MHz band	± 0.35 dB	
Card to Card Isolation		65 dB	
1 dB Compression		+ 10 dBm at output	
Noise Figure		11.5 dB	
Input Return Loss		15 dB (typical BNC 50Ω)	
Output Return Loss		15 dB (typical BNC 50Ω)	

\*Set on test for optimum system performance

System Control (Chassis)	
Display	Status LEDs on individual modules and summary status LED on rear panel of chassis
Remote Interface	RS232 & RJ45 Ethernet 10baseT
Protocols	Serial (also over TCP/IP), Web Browser Interface, SNMP

Environmental (Chassis)	
Operating temperature	0 to 45°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	85% non-condensing

Physical (Chassis)	
Input Connector	BNC (75Ω or 50Ω), SMA (50Ω) or F-type 75Ω) - as rear panel adaptor
Input Impedance	75Ω or 50Ω
Output Connector	BNC (75Ω or 50Ω), SMA (50Ω) or F-type 75Ω) - as rear panel
Output Impedance	75Ω or 50Ω
DC Blocking	Yes
Dimensions	3U high x 250mm deep x 19" wide
Weight	11 kg
Colour	White 00-E-55 semi-gloss

Power (Chassis)	
AC Power	85-264Vac 50/60Hz
LNB Power	None
PSU	Dual redundant
Hot-swap PSU	Yes

Key Features	
Dual Redundant Hot-swap PSU's	
Hot-swap CPU and Hot-swap Combiner Modules	
Remote Control & Monitoring	
For use with IF and L-band Matrix Systems	

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