

Model 3211

75 Ohm / 50 Ohm Solid State RF Matrix Broad-band (50 MHz - 2150 MHz)

Key Features

75 Ohm / 50 Ohm Solid State Matrix
Non-Blocking Full Fan-out:
64 inputs by 64 outputs
Local Control: LCD and Keypad (optional)
Remote Control: ENET, or GPIB, or RS-232/RS-485

Part Number

3211 - 64X64 - *

* ENET (includes RS-232 / RS-485), GPIB

Description

Model 3211 is a non-blocking 75 Ohm (or 50 ohm upon request) full fan-out (any input connected to any output simultaneously) solid state switching system with a broad operating frequency stretching from 50 to 2150 MHz. The matrix is housed in a 18U 19" rack chassis and is configured with (64) inputs and (64) outputs accessible from the rear panel. Model 3211 consists of the following sub-assemblies:

- >> low noise amplifiers with high dynamic range
- >> power dividers
- >> Ethernet and RS-232/RS-485 remote interface (default)
- >> manual (local) interface (optional)
- >> redundant power supply (optional)
- >> voltage monitoring board (optional)

With a modular approach, the sub-assemblies enable ease of installation and maintenance.

Control Interfaces

Local control (manual control optional):
>> 4x20 LCD and 3x6 pushbuttons

Remote Control:
>> Default: LAN via TCP/IP protocol (ENET)
>> Other control interfaces such as GPIB is available upon request.

Special Features

- >> The power supply voltage and the I/O boards are monitored in a processor routine.
- >> The selected crosspoints as well as the voltage and I/O fault messages are displayed on the manual control module.
- >> A status string can be requested at any time via the control interface
- >> The unit is constructed using a modular approach utilizing sub-assemblies such that it enables the ease of installation and maintenance.



Photo: 3211-64X64-ENET

Environment

Power Supply: 115 / 230 VAC, 47-63 Hz, redundant power supply (optional)
Storage Temperature: -20 °C to +70 °C
Operating Temperature: 0 °C to +40 °C
Operating Humidity: 10-80% (non-condensing)
EMC: EN61000-6-1 and EN61000-6-3

Physical

Relay Type: Solid State
I/O Connector Type: F female (75 Ohm) / SMA-f (50 ohm)
Dimensions: 19" wide standard rack mount
18U maximum height (5.25")
22" maximum depth
Front Panel Color: Gray

RF Characteristics

Impedance:	75 Ohm or 50 Ohm available	
Operating Frequency:	50-2150 MHz	
Switching Time:	20 ms	
	50 - 90 MHz	950 - 2150 MHz
VSWR (max)	1.5:1	2.0:1
Isolation (min)	50 dB in/in	40 dB in/in
	(same inputs) 45 dB out/out	40 dB out/out
	(diff. inputs) 45 dB out/out	40 dB out/out
Crosstalk (min)	55 dB	40 dB
Gain	1 dB +/- 0.50 dB	1 dB +/- 1.50 dB
Gain Flatness (typ)	+/- 1.0 dB	+/- 2.5 dB
Noise Figure (max)	18.0 dB	18.0 dB
Ripple over 80 MHz BW	-	+/- 1.0 dB
Saturation	+5 dBm	0 dBm
1 dB Compression Point	0 dBm	-5 dBm
3rd Order IP (min.)	+10 dBm	+5 dBm