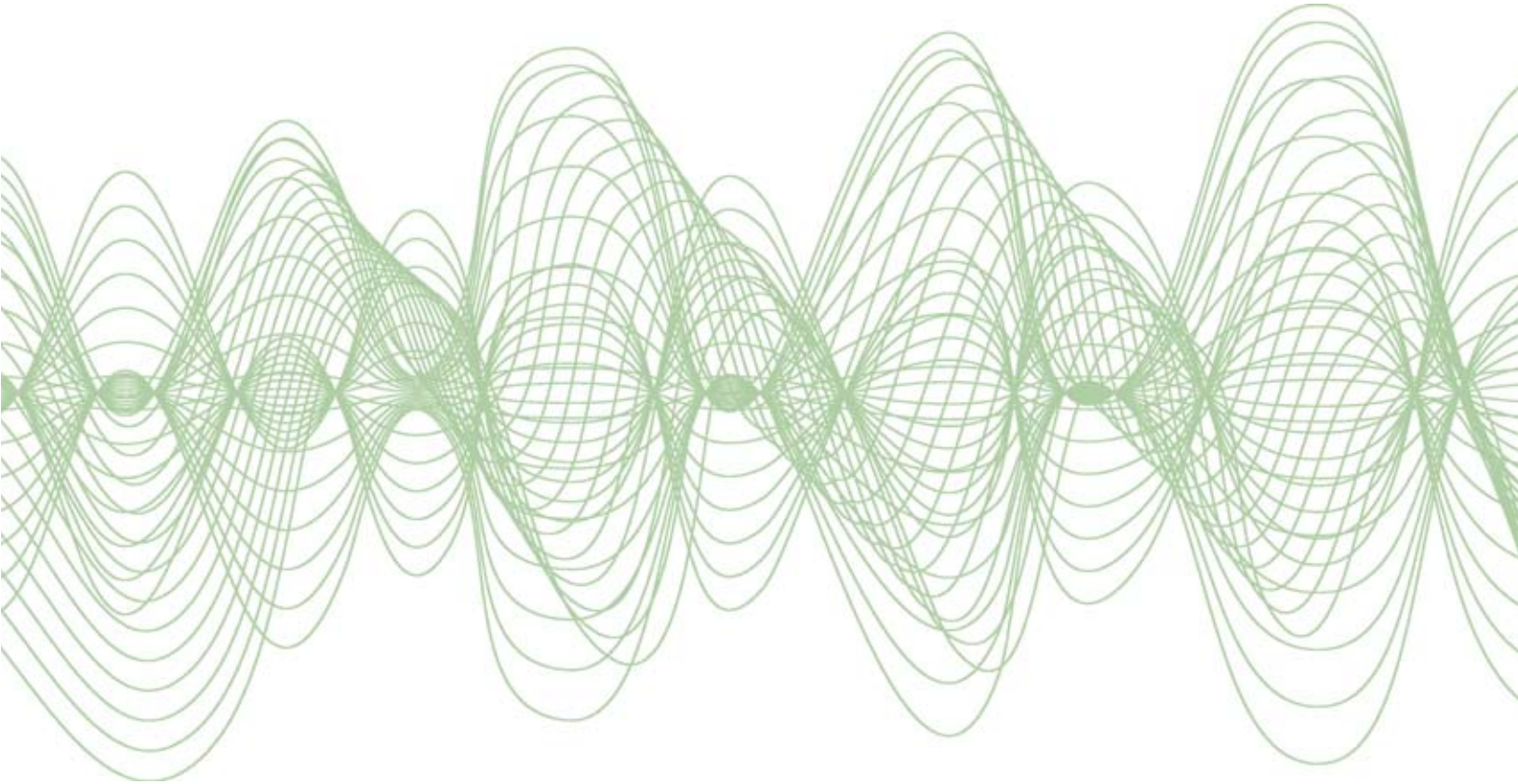
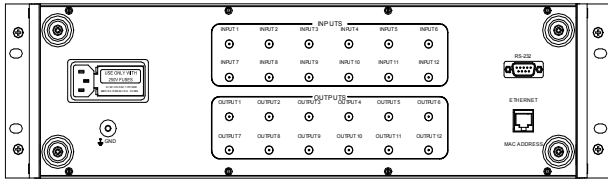


SOLID STATE MATRICES



DowKey® Microwave
CORPORATION

A **DOVER** COMPANY



3202

Application

The 3202 Model is a non-blocking full fan-Out solid state switch matrix operating from 800 MHz to 2500 MHz (L-band). The system can be configured with maximum 12 inputs and 12 outputs or as 8 by 16.

As a fan-out matrix, the input RF signals are amplified and divided across every output such that each input signal can be switched to all output ports simultaneously.

This model is equipped with a MS Windows based PC, removable SATA hard drive and redundant power supplies with LED monitoring on the front panel. Locally it can be controlled via an LCD touch screen and remotely with Ethernet.

This model is ideal for SATCOM applications where high density RF switching (transmitting and receiving) for narrowband, low frequency and low power applications are required.

Specifications

Relay Type	Solid State
Other Components	Amplifiers, Power Dividers
I/O Connector Type	SMA female
Switching Time (typ)	100 ms (incl. control delay)
MTBF	25,000-50,000 Hours
Dimensions (max)	19" wide rack mount 21" Depth 3U Height (5.25")
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +70 °C
Operating Humidity	10-80% non-condensing
Weight (max)	40 lbs

Features

Input/Output ports	6x6 to 12x12 unidirectional
Configuration	Non-blocking Full Fan-Out
Operating Frequency	800-2500 MHz
Manual Control	LCD Touch Screen
Remote Control	Ethernet
Power Supply	Redundant power supplies
Impedance	50-Ohm

Part Numbers

N= # of Inputs / M= # of Output

3202	(12x12)	3202-NXM-ENET
3202-8X16-ENET	(8X16)	N=M: 6x6, 8x8, 10x10

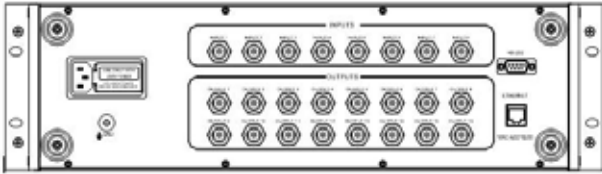
RF Characteristics

6x6 to 12x12, 8x16

VSWR (max)	1.80:1 input & output
Isolation (min)	55 dB input/input
	55 dB input/output
	55 dB output/output (different input)
	40 dB output/output (common input)
Gain	0 dB ± 2.0 dB
Gain Flatness	0.5 dB max over any 50 MHz span 800-950 MHz & 2250-2500 MHz
Survivable Input Power	+20 dBm (max) no damage
1dB Compression (min)	+12 dBm input
3rd Order Intercept (min)	+25 dBm
2nd Order Intercept (min)	+30 dBm
Noise Figure (max)	15 dB

Local Control	6.5" LCD Touch Screen (640x480)
Remote Control	Ethernet TCP/IP, 10/100/1000 BASE-T
Commands/Syntax	Dow-Key SCPI commands
Operating System	Microsoft Windows 7 or later
	RS-232 gives access to the built-in PC
Hard drive	160 GB (min) SATA HD / removable
CPU/ Memory	Embedded Intel processor / 2G RAM (min)
Power Supply	120-240 VAC, 50-60 Hz, 3-6A, 250W (max)
	Power ON/OFF switch with guard on the front and LED indicators for redundancy
Fuse	Accessible/replaceable on the rear
Cooling / Venting	4 fans / side-to-side

We reserve the right to alter, amend or replace any specifications at our sole discretion and without prior notice.



3203

Application

The 3203 Model is a non-blocking full fan-out solid state switch matrix operating from 10 MHz to 1100 MHz (VHF-band). The system can be configured with a maximum 8 inputs and 16 outputs.

As a fan-out matrix, the input RF signals are amplified and divided across every output such that each input signal can be switched to all output ports simultaneously.

The 3203 series is equipped with a MS Windows based PC, LCD touch screen display with GUI for manual control and redundant power supplies with LED monitoring on the front panel. Remotely, it is controlled using Ethernet.

This model is ideal for SATCOM applications where high density RF switching (transmitting and receiving) for narrowband, low frequency and low power applications are required.

Specifications

Relay Type	Solid State
Other Components	Amplifiers, 8-way Power Dividers
I/O Connector Type	BNC female
Switching Time (typ)	100 ms (incl. control delay)
MTBF	25,000-50,000 Hours
Dimensions (max)	19" wide rack mount 21" Depth 3U Height (5.25")
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +70 °C
Operating Humidity	10-80% non-condensing
Weight (max)	40 lbs

Features

Input/Output ports	8x8 or 8x16 unidirectional
Configuration	Non-blocking Full Fan-Out
Operating Frequency	20-1100 MHz
Manual Control	LCD Touch Screen
Remote Control	Ethernet
Power Supply	Redundant power supplies
Impedance	50-Ohm

Part Numbers

3203 (8X16)	3203-8X8-ENET (8X8)
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RF Characteristics

8x8 to 8x16

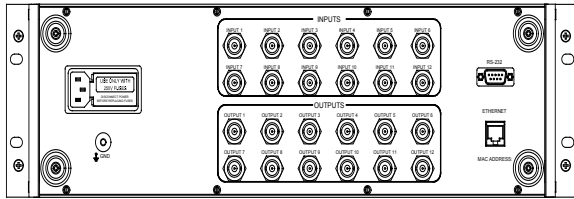
VSWR (max)	1.80:1 input & output
Isolation (min)	55 dB input/input
	55 dB input/output
	55 dB output/output (different input)
	30 dB output/output (common input)
Gain	0 dB \pm 2.0 dB
Survivable Input Power	+25 dBm (max) no damage
1dB Compression (min)	+15 dBm input
3rd Order Intercept (min)	+25 dBm
2nd Order Intercept (min)	+55 dBm
Noise Figure (max)	14 dB

Local Control	6.5" LCD Touch Screen (640x480)
Remote Control	Ethernet TCP/IP, 10/100/1000 BASE-T
Commands/Syntax	Dow-Key SCPI commands
Operating System	Microsoft Windows 7 or later RS-232 gives access to the built-in PC
Hard drive	160 GB (min) SATA HD / removable
CPU/ Memory	Embedded Intel processor / 2G RAM (min)
Power Supply	120-240 VAC, 50-60 Hz, 3-6A, 250W (max) Power ON/OFF switch with guard on the front and LED indicators for redundancy
Fuse	Accessible/replaceable on the rear
Cooling / Venting	4 fans / side-to-side

We reserve the right to alter, amend or replace any specifications at our sole discretion and without prior notice.



3204



Application

The 3204 Model is a non-blocking full fan-out solid state switching system operating from 20 MHz to 200 MHz (IF-band). The system can be configured to a maximum of 12 inputs and 12 outputs.

As a fan-out matrix, the input RF signals are divided across every output such that each input signal can be switched to all output ports simultaneously.

This model is equipped with a MS Windows based PC, removable SATA hard drive and redundant power supplies with LED monitoring on the front panel. Locally it can be controlled via an LCD touch screen and remotely with Ethernet.

This model is ideal for SATCOM applications where high density RF switching (transmitting and receiving) for narrowband, low frequency and low power applications are required.

Specifications

Relay Type	Solid State
Other Components	Amplifiers, Power Dividers
I/O Connector Type	SMA female
Switching Time (typ)	100 ms (incl. control delay)
MTBF	25,000-50,000 Hours
Dimensions (max)	19" wide rack mount 21" Depth 3U Height (5.25")
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +70 °C
Operating Humidity	10-80% non-condensing
Weight (max)	40 lbs

We reserve the right to alter, amend or replace any specifications at our sole discretion and without prior notice.

Features

Input/Output ports	6x6 to 12x12 unidirectional
Configuration	Non-blocking Full Fan-Out
Operating Frequency	20-200 MHz
Manual Control	LCD Touch Screen
Remote Control	Ethernet
Power Supply	Redundant power supplies
Impedance	50-Ohm

Part Numbers

	N= # of Inputs / M= # of Output
3204 (12x12)	3204-NXM-ENET N=M: 6x6, 8x8, 10x10

RF Characteristics

6x6 to 12x12

VSWR (max)	1.50:1 input & output
Isolation (min)	55 dB input/input 55 dB input/output 55 dB output/output (different input) 40 dB output/output (common input)
Gain	0 dB ± 1.0 dB
Gain Flatness	0.5 dB max over any 70 MHz span
Survivable Input Power	+15 dBm (max) no damage
1dB Compression (min)	+10 dBm input
3rd Order Intercept (min)	+20 dBm
2nd Order Intercept (min)	+35 dBm
Noise Figure (max)	15 dB

Local Control	6.5" LCD Touch Screen (640x480)
Remote Control	Ethernet TCP/IP, 10/100/1000 BASE-T
Commands/Syntax	Dow-Key SCPI commands
Operating System	Microsoft Windows 7 or later RS-232 gives access to the built-in PC
Hard drive	160 GB (min) SATA HD / removable
CPU/ Memory	Embedded Intel processor / 2G RAM (min)
Power Supply	120-240 VAC, 50-60 Hz, 3-6A, 250W (max) Power ON/OFF switch with guard on the front and LED indicators for redundancy
Fuse	Accessible/replaceable on the rear
Cooling / Venting	4 fans / side-to-side



3205

Features

Input/Output ports	6x6 to 12x12 unidirectional
Configuration	Non-blocking Full Fan-Out
Operating Frequency	2-32 MHz
Manual Control	LCD Touch Screen
Remote Control	Ethernet
Power Supply	Redundant power supplies
Impedance	50-Ohm

Part Numbers

3205 (6X12)	3205-6X6-ENET (6X6)
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Application

The 3205 Model is a non-blocking full fan-out solid state switching system operating from 2 MHz to 32 MHz (HF-band). The system can be configured with a maximum 6 inputs and 12 outputs

As a fan-out matrix, the input RF signals are divided across every output such that each input signal can be switched to all output ports simultaneously.

This model is equipped with a MS Windows based PC, removable SATA hard drive and redundant power supplies with LED monitoring on the front panel. Locally it can be controlled via an LCD touch screen and remotely with Ethernet.

This model is ideal for SATCOM applications where high density RF switching (transmitting and receiving) for narrowband, low frequency and low power applications are required.

RF Characteristics

6x6 to 6x12

VSWR (max)	1.80:1 input & output
Isolation (min)	50 dB input/input
	50 dB input/output
	50 dB output/output (different input)
	30 dB output/output (common input)
Gain	0 dB \pm 2.0 dB
Survivable Input Power	+25 dBm (max) no damage
1dB Compression (min)	+15 dBm input
3rd Order Intercept (min)	+30 dBm
2nd Order Intercept (min)	+60 dBm
Noise Figure (max)	10 dB

Specifications

Relay Type	Electromechanical Relay
Other Components	Amplifiers, Power Dividers
I/O Connector Type	SMA female
Switching Time (typ)	100 ms (incl. control delay)
MTBF	25,000-50,000 Hours
Dimensions (max)	19" wide rack mount 21" Depth 3U Height (5.25")
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +70 °C
Operating Humidity	10-80% non-condensing
Weight (max)	40 lbs

Local Control	6.5" LCD Touch Screen (640x480)
Remote Control	Ethernet TCP/IP, 10/100/1000 BASE-T
Commands/Syntax	Dow-Key SCPI commands
Operating System	Microsoft Windows 7 or later RS-232 gives access to the built-in PC
Hard drive	160 GB (min) SATA HD / removable
CPU/ Memory	Embedded Intel processor / 2G RAM (min)
Power Supply	120-240 VAC, 50-60 Hz, 3-6A, 250 W (max) Power ON/OFF switch with guard on the front and LED indicators for redundancy
Fuse	Accessible/replaceable on the rear
Cooling / Venting	4 fans / side-to-side

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MICROWAVE PRODUCTS GROUP

A **DOVER** COMPANY



Microwave Products Group (MPG) designs, manufactures and sells special electronic components and systems, including high-performance filters, switches, diplexers, duplexers, Integrated Cosite Equipments (ICE), EMI filters and Low PIM solutions. Our products are used in military, space, telecom infrastructure, medical and industrial applications where function and reliability are crucial.

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