



# MI-505nn

## Quadruplexer

### 700-900/1800/2100/2300-2600 MHz



This picture is showing MI-50501

## MASS™

### Microdata Advanced Site Solutions

With our expertise in site system design we are able to provide a solution for any site sharing or upgrade scenario.

Our focus area is RF-filter based solutions including combiners, multi band TMAs, di-, tri- and quadruplexers.

Our product portfolio supports all frequencies for mobile communication bands ranging from 450 MHz to 6 GHz.

Site and network sharing makes it cost efficient to reach sparsely populated areas where new subscribers can contribute to revenue.

## MASS™

### Advantage

#### Increases coverage

more traffic & higher ARPU

#### Increases capacity

more traffic & higher ARPU

#### Reduces the cost

of network expansion

#### Minimizes

site acquisition issues

## Specifications

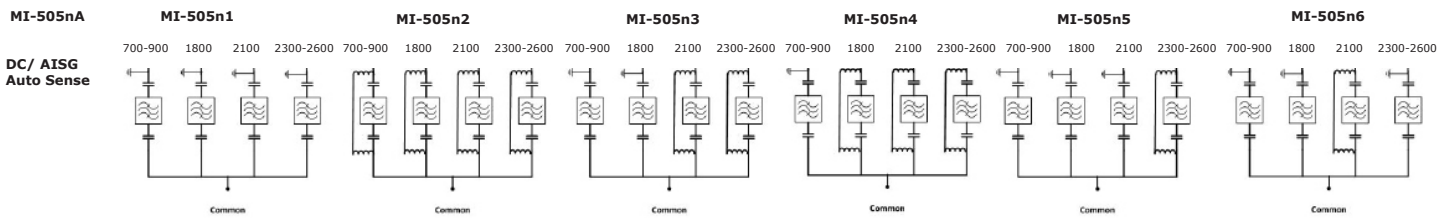
Port 1 (700-900) - Common		
Frequency Band	698 - 960 MHz	
Insertion Loss	< 0.2 dB	
Return Loss, normal modes, all ports	> 18 dB	
Rejection 1710 - 2690 MHz	50 dB	
Continuous Average Power	250 W	
Intermod. (IM3), 2x43 dBm TX Carrier	-117 dBm	
Port 2 (1800) - Common		
Frequency Band	1710 - 1880 MHz	
Insertion Loss	0.4 dB*	
Return Loss	> 18 dB	
Rejection 1920 - 2690 MHz	50 dB	
Rejection 698 - 960 MHz	50 dB	
Continuous Average Power	250 W	
Intermod. (IM3), 2x43 dBm TX Carrier	-117 dBm	
Port 3 (2100) - Common		
Frequency Band	1920 - 2170 MHz	
Insertion Loss, 1920 - 1980 MHz	0.3 dB*, 0.5 dB max.	
Insertion Loss, 2110 - 2170MHz	0.25 dB*	
Return Loss	> 18 dB	
Rejection 698 - 1880 MHz	55 dB	
Rejection 2300 - 2690 MHz	50 dB	
Continuous Average Power	250 W	
Intermod. (IM7), 2x43 dBm TX Carrier	-125 dBm	
Port 4 (2300-2600) - Common		
Frequency Band	2300 - 2690 MHz	
Insertion Loss, 2300 - 2690 MHz	0.2 dB*	
Return Loss	> 18 dB	
Rejection 698 - 2170 MHz	50 dB	
Continuous Average Power	250 W	
Intermod. (IM3), 2x43 dBm TX Carrier	-117dBm	
Environmental		
Operating Temperature Range	-40° to +65°C   -40° to +149°F	
Environmental	ETS 300 019-1-4 Class 4.1E	
Ingress Protection	IP67	
Safety	IEC/EN 62368-1	
Electrical		
		With Auto-Sense
Lightning Protection	5 kA 8/20 µs	5 kA 8/20 µs
DC Pass Current	3.0 A continuous max.	2 A, drop max 2.4V
AISG pass	Yes	
AISG RL		> 12 dB
AISG Loss		< 1 dB
MTBF	1 Mh min.	1 Mh min
Input Voltage Power		8-30 V Max 0.3W
Mechanical		
	Single Mount	Dual Mount
Dimensions (WxHxD)	250x160x49 mm 9.84x6.30x1.93 in	250x160x104 mm 9.84x6.30x4.09 in
With Auto-Sense	250x160x60 mm 9.84x6.30x2.36 in	To be added
Volume	1.96 l	4.16 l
With Auto-Sense	2.4 l	4.8 l
Weight	4.5 kg   9.92 lb	8.2 kg   18.0 lb
With Auto-Sense	5.2 kg   11.4 lb	8.9 kg   19.6 lb
Connectors	See Selection Guide	
Mounting	Hose clamps or wall mount. Supporter Pole Diameter: 40-140mm	
Colour	NCS 1502-R (light grey)	
Bracket	Included	
* typical		

## Selection Guide

		Connector (F)	
		7/16	4.3-10
Mount	Single	<b>MI-5050n</b>	<b>MI-5053n</b>
	Dual	<b>MI-5051n</b>	<b>MI-5054n</b>

Shipping Information	Single Mount	Dual Mount
Shipping weight (or Gross weight, including packaging)	3.9kg   8.6 lbs	6.8 kg   15.0 lbs
Carton Size*	330x305x160 mm 13.0x12.0x6.3 in	330x310x190 mm 13.0x12.2x7.5 in
Carton Qty/Pallet	56	48
*The Carton Size of different models varies, please contact us for detailed information		

## Block Diagram



## DC/AISG

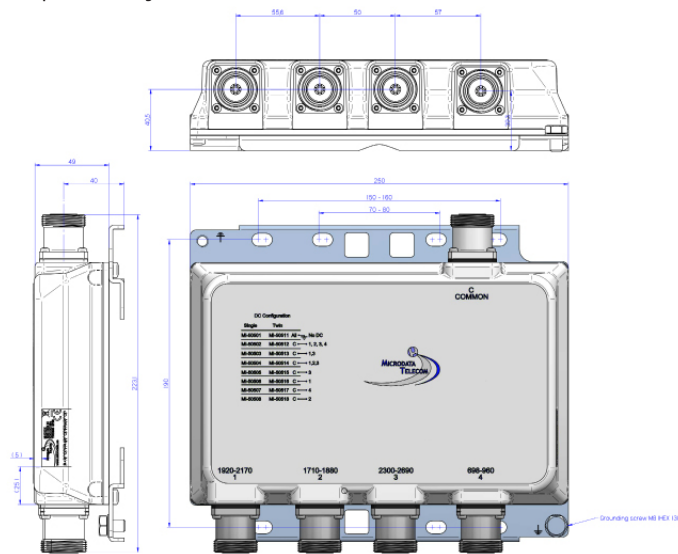
	700-900	1800	2100	2300-2600
<b>MI-505nA</b>	Auto-Sense			
<b>MI-505n1</b>	Block	Block	Block	Block
<b>MI-505n2</b>	Pass	Pass	Pass	Pass
<b>MI-505n3</b>	Block	Block	Pass	Pass
<b>MI-505n4</b>	Block	Pass	Pass	Pass
<b>MI-505n5</b>	Block	Block	Block	Pass
<b>MI-505n6</b>	Block	Block	Pass	Block

## Auto-Sense Priority

	700-900	1800	2100	2300-2600
<b>MI-505nA.1</b>	FPO	FPO	FPO	FPO
<b>MI-505nA.2</b>	XOR	XOR	XOR	XOR
<b>MI-505nA.3</b>	4	3	2	1
<b>MI-505nA.4</b>	1	2	3	4
<b>MI-505nA.5</b>	2	4	1	3
<b>MI-505nA.6</b>	2	4	3	1
<b>MI-505nA.7</b>	2	3	4	1

## Mechanical Drawing

\*This picture is showing MI-50501



\*This picture is showing MI-5050A

