



# MI-231nn

## Quadruplexer

### 800/900/1800+2100/2600

## 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 (800) - Common	
Frequency Band	790 - 862 MHz
Insertion Loss	0.2 dB typ, 0.4 dB max
Return Loss, normal modes, all ports	> 18 dB
Rejection 880 - 2690 MHz	> 50 dB (>30 dB 900 RX)
Continuous Average Power	250 W
Intermod. (IM3), 2x43 dBm TX Carrier	-116 dBm
Port 2 (900) - Common	
Frequency Band	880 - 960 MHz
Insertion Loss	0.2 dB typ, 0.4 dB max
Return Loss	> 18 dB
Rejection 790 - 862 MHz	> 50 dB TX >30 dB RX
Rejection 1710 - 2690 MHz	50 dB
Continuous Average Power	250 W
Intermod. (IM3), 2x43 dBm TX Carrier	-116 dBm
Port 3 (1800-2100) - Common	
Frequency Band	1710 - 2170 MHz
Insertion Loss, 1710 - 2170 MHz	0.2 dB typ, 0.4 dB max
Return Loss	> 18 dB
Rejection 790 - 960 MHz & 2500 - 2690 MHz	50 dB
Continuous Average Power	250 W
Intermod. (IM3), 2x43 dBm TX Carrier	-116 dBm
Port 4 (2600) - Common	
Frequency Band	2500 - 2690 MHz
Insertion Loss, 2500 - 2690 MHz	< 0.3 dB
Return Loss	> 18 dB
Rejection 790 - 2170 MHz	50 dB
Continuous Average Power	250 W
Intermod. (IM3), 2x43 dBm TX Carrier	-116 dBm
Environmental	
Operating Temperature Range	-40° to +65°C
Environmental	ETS 300 019
Ingress Protection	IP68
Electrical	
Lightning Protection	IEC61000-4.5
DC Pass Current	3.0 A continuous max.
AISG pass	Yes
MTBF	1 Mh min.
Safety	EN60950
Mechanical	
Dimensions (WxHxD)	264 x 160 x 58 mm
Connectors	See Selection Guide
Mounting	Hose clamps or wall mount
Volume	2.4 l
Weight	4.5 kg
Colour	NCS 1502-R (light grey)
*typical	

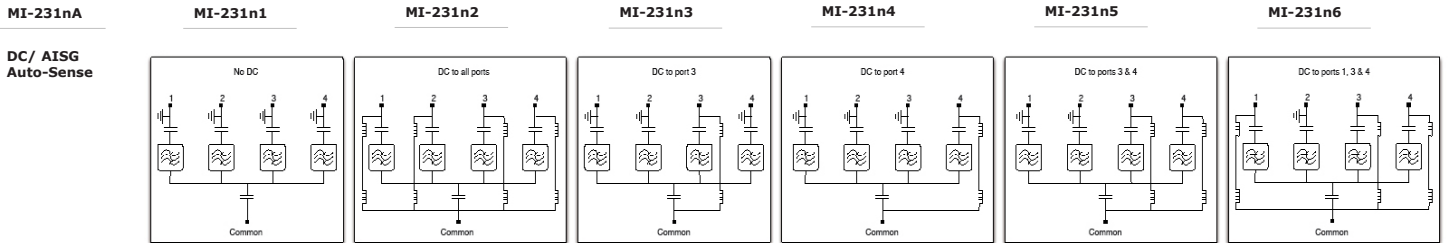
## Selection Guide

		Connector (F)	
		7/16	4.3-10
Mount	Single	MI-2310n	MI-2313n
	Dual	MI-2311n	MI-2314n

### Auto-Sense: MI-231nA

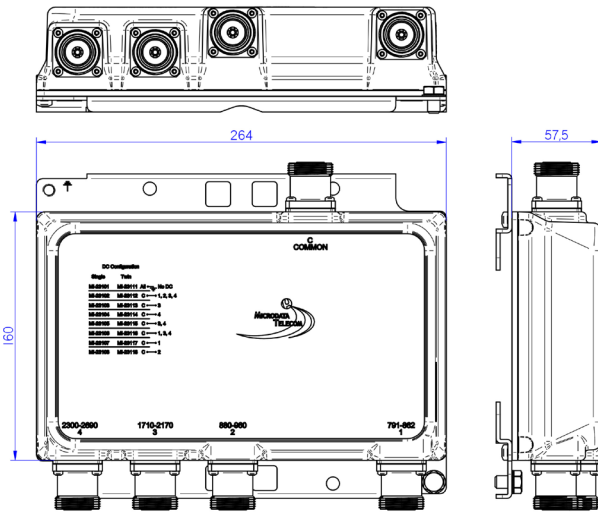
\*The dual filter configuration is mounted on a single bracket for hose clamp or wall mount.

### Block Diagram



### Mechanical Drawing

\*This picture is showing MI-2310n



\*This picture is showing MI-2311n

