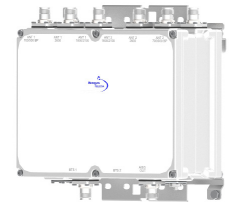




# MI-192nn

## TMA Twin 1800/2100/2600

### Low-band BYP



This picture is showing MI-192nn



## General Description

Microdata Telecom's TMA provides network operators with a cost effective solution that delivers up to 50% improvement in uplink throughput while reducing dropped connections up to 20%.

The lower interference achieved with Microdata Telecom TMA shifts the traffic to higher coding schemes which further improves network performance and capacity.

The PIM buffer effect of Microdata Telecom TMAs will enable profitable use of spectrum previously avoided due to PIM contamination.

## Features & Benefits

- Active LNA on all bands
- Market leading PIM performance ( -160 dBc across the product portfolio)
- Efficiently prepare your sites for future expansions
- Fully utilize the capabilities of your ultra-wideband antennas
- Diplexed BTS Port that enable antenna and feeder sharing
- Small and light for minimum visual impact
- Reduce tower loading with up to 75%
- Full AISG operation and RET (Remote Electrical Tilt) antenna support

## Specifications

Downlink (TX) Path	1800	2100	2600
Frequency Band	1805 - 1880 MHz	2110 - 2170 MHz	2620-2690
Insertion Loss	0.5 dB*	0.4 dB*	0.4 dB*
Return Loss	≥ 18 dB	≥ 18 dB	≥ 18 dB
Continuous Average Power	200 W (53 dBm)	200 W (53 dBm)	200 W (53 dBm)
Intermod, 2x43 dBm TX@ BTS ANT port	-117 dBm in RX band,	-117 dBm in RX band,	-117 dBm in RX band,
<b>Uplink (RX) Path</b>			
Frequency Band	1710 - 1785 MHz	1920 - 1980 MHz	2500-2570 MHz
Gain	12 dB nominal	12 dB nominal	12 dB nominal
Return Loss	≥ 16 dB	≥ 16 dB	≥ 16 dB
Noise Figure	1.4 dB*	1.4 dB*	1.4 dB*
Insertion Loss, Bypass mode	2.0 dB*	2.2 dB*	2.0 dB*
Return Loss, Bypass mode	≥ 12 dB	≥ 12 dB	≥ 12 dB
Output IP3	25 dBm*	25 dBm*	25 dBm*
Input Power	+10dBm	+10dBm	+10dBm
<b>Bypass path Low-band</b>			
Frequency Band	694 - 960 MHz		
Insertion Loss	0.2 dB*		
Return Loss	18 dB		
Continuous Average Power	200 W (53 dBm)		
<b>Power Supply and Alarm AISG - Mode</b>			
DC	24 V DC nominal (9-30 V DC)		
Power	< 4 W		
Alarm	3GPP/AISG 2.0		
<b>Environmental</b>			
Operating Temperature Range	-40 to +65°C   -40 to +149°F		
Operation	ETS 300 019-1-4, Class 4.1 E		
Storage	ETS 300 019-1-1, Class 1.2		
Ingress Protection	IP67		
Lightning Protection	5 kA 8/20 μs (ANT, BTS) 3 kA (RET port)		
<b>Miscellaneous</b>			
EMC	EN 301 489-50		
Safety standards	IEC/EN 62368-1		
MTBF	1 Mh/TMA min.		
<b>Mechanical</b>			
Dimensions (WxHxD)	309x231x123 mm   12.17x9.09x4.84 in		
Connectors (See Selection Guide)	6x ANT, (2xLB, 2x18+21, 2x26) 2x BTS, AISG Female 8 pin circular		
Mounting	Hose clamps, arbitrary orientation. Supporter Pole Diameter: 40-140mm		
Volume	8.8 l		
Colour	NCS 1502-R		
Weight	12 kg   26.46 lb		
Bracket	Included		
<b>Shipping Information</b>			
Carton Size	TBD		
Carton Qty/Pallet	TBD		

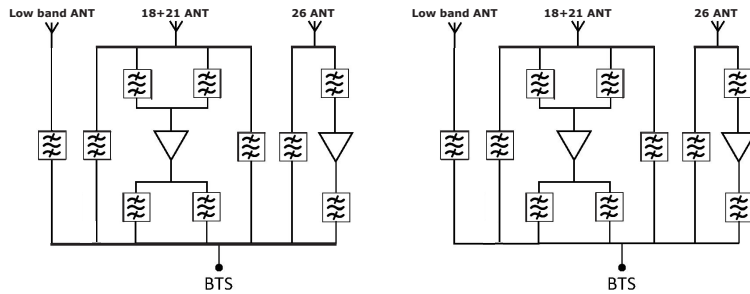
## Selection Guide

Model number	AISG		Connector (F)		
	Common Mode	Independent	7/16	4.3-10	AISG
MI-19201	X	TWOTWO <sup>1</sup>	X		1x
MI-19202	X	TRITWO <sup>2</sup>	X		1x
MI-19206			X	X	2x
MI-19231	X	TWOTWO <sup>1</sup>		X	1x
MI-19232	X	TRITWO <sup>2</sup>		X	1x
MI-19236			X	X	2x

<sup>1</sup>TWOTWO: the TMA is identified as 2 logic unit with 2 subunits each

<sup>2</sup>TRITWO: the TMA is identified as 3 logic units with 2 subunits each

## Block Diagram



## Mechanical Drawing

The drawing is showing MI-19232

