



MI-20803

Same Band Combiner

Type 3 & 4

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

UMTS2100 Same Band Combiner AISG and DC Transparency			
Uplink (Rx)			
	Low	Mid	High
Frequency Band MHz	1920 - 1935	1940 - 1960	1970 - 1980
IL dB (typ/max.)	1.0/1.5	1.0/1.5	1.1/1.5
EVM typical %	0.1/0.5/2.0	2.0/0.5/0.1/0.8	1.0/1.0
	MHz @1922.5/1927.5/1932.5	@1942.5/1947.5/1952.5/1957.5	@1972.5/1977.0
Downlink (Tx)			
	Low	Mid	High
Frequency Band MHz	2110- 2125	2130 - 2150	2160 - 2170
IL dB (typ/max.)	0.5/0.7	0.6/0.7	0.6/0.7
Intermodulation, 2x43 dBm TX Carrier BTS port -160 dBc			
EVM typical %	0.1/0.4/1.5	1.6/0.4/0.2/1.0	0.6/0.1
	MHz @2112.5/2117.5/2122.5	@2132.5/2137.5/2142.5	@2162.5/2167.5
Power Handling, Average 200W (53 dBm), Peak 500 W (57 dBm)			
All Bands			
Return Loss		18 dB	
Isolation between Node B ports		@ Rx frequency	@ Tx frequen-
		20 dB	25 dB
Power Supply			
AISG Signal Attenuation		< 1 dB @ 2.176 MHz	
Voltage Drop		1 V max. @ 10 - 30 VDC	
Supply Voltage Handling		0 - 32VDC	
Continous Current Handling		5A, 0 - 32 VDC	
AISG / DC Transparency between ports		TBD	
Environmental			
Operating Temperature Range °C		-20 to +65°C	
Operation		ETS 300 019-1-4	
Storage		ETS 300 019-1-1	
Ingress Protection		IP67	
Miscellaneous			
EMC		EN 301 489-8	
Safety standards		EN 60950	
MTBF		1.5 M hours	
Lightning Protection		3 kA 10/350 µs, 10 kA 8/20 µs	
Mechanical			
Dimensions (WxHxD)		350x250x80 mm	
Connectors		7/16 (F)	
Volume		5.8 l	
Weight		9 kg	
Colour		NCS 1502-R	

Block Diagram

