

MiniSystem Combiner

800MHz

4 Channel Compact Combining System - Single Antenna operation - with Rx Preamplifier

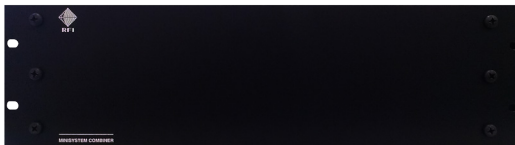
MSxxxx-0405-SP



The MiniSystem Combiner (MSC) is an innovative solution that simplifies the design, quotation, procurement and installation of RF combining for applications requiring 1-4 RF channels. It caters for most standard frequency sub-bands, channel spacings and Tx-Rx frequency separations. The MSC Tx combiner uses dual stage isolators and hybrid combining techniques to provide Tx-Tx isolation and to minimise intermodulation (IM) impacts. The Rx system uses an ultra low noise preamplifier with user-selectable gain and excellent 3OIP performance, with a multi-way output divider to ensure optimum system receive sensitivity is available. Integral high quality bandpass filtering provides high Rx selectivity and Tx-Rx system isolation performance. Form-C relay outputs provide alarm notification of DC power or Rx LNA amplifier failure. The MSC is available in sub-bands covering VHF, UHF and 800MHz frequency ranges.

Features:

- 4 channel capacity
- 50W Tx input power (per channel)
- 100% Tx Duty Cycle
- Open-circuit antenna port VSWR protection
- Ultra low noise receiver preamplifier
- User-selectable Rx gain
- DC power and Rx LNA Fail alarm monitoring
- Compact 19in rack mounting



FRONT VIEW



REAR VIEW

Specifications

Model MSxxxx-0405-SP	8087
Frequency Range (MHz)	800-870
Tx Channel Capacity	4
Tx Input Power	≤ 50W per channel
Tx Duty Cycle	≤ 100% per channel
Tx-Tx Bandwidth	5MHz
Tx Insertion Loss	9dB typ.
Tx-Tx Isolation	> 60dB
Tx-Ant Isolation	> 50dB
Tx-Rx Isolation	70dB typ.
Tx Input Return Loss	20dB typ.
Tx-Rx Separation	40MHz min.
Rx Channel Capacity	4
Rx-Rx Bandwidth	5MHz
Rx System Gain	0dB to 30dB (in 1dB steps)
Rx LNA Noise Figure	< 2dB (1.2dB typ.)
Rx Maximum Input Level	-10dBm
Rx-Rx Isolation	> 18dB
Rx Output Return Loss	> 20dB
Impedance	50 ohms (all RF ports)
Alarms	DC Supply Voltage Low, Rx LNA Fail
Alarm Outputs	Dry Relay Form-C (N.C./N.O./CMN)
RF Connectors	Tx = N (female) Rx = BNC (female)
DC Connector	2pin 5mm Phoenix (mating plug supplied)
Alarm Connector	3pin 5mm Phoenix (mating plug supplied)
Enclosure	3RU 19in Rack Mount (Black)
DC Power Requirements	+11VDC to +28VDC 3.5W typ. (polarity protected)
IP Rating	Indoor Use Only
Temperature Range	-30° to +60° C (-122° to +140° F)
Dimensions (HxWxD)	133x483x430mm (5.23x19x17in)
Weight	19Kg (42lbs)

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Ordering Information

RFI Part Number	Description
MS8087-0405-SP	MiniSystem Combiner, 800-870MHz, 4 Channel, 50 Watt, Single Antenna Operation, Preamplifier fitted