

MSH3-DA45-1L-115D

Mini Hybrid System, 4 Channel, UHF

- Embedded duplexer for single antenna operation
- Hybrid design allowing for minimum Tx separation •
- 100 watts input power per channel with 100% duty cycle
- Built-in low noise amplifier on receive path
- User-adjustable Rx gain •
- Power and LNA failure alarm monitoring
- Low PIM design for optimum system performance
- Test port included for accurate receiver sensitivity measurements
- Compact 19" rack mount chassis



Sinclair's new Mini Hybrid System is a cutting-edge solution designed to simplify the RF combining and duplexing process for applications that require 2-4 RF channels. This innovative system accommodates a wide range of standard frequency sub-bands, channel spacings, and Tx-Rx frequency separations. By utilizing triple-stage isolators and hybrid combining techniques, the Tx combiner ensures exceptional Tx-Tx isolation and minimizes intermodulation impacts. On the Rx side, an ultra-low-noise preamplifier with user-selectable gain and outstanding 3OIP performance optimizes system receive sensitivity. With integral high-quality bandpass filtering, the Mini Hybrid System offers high Rx selectivity and excellent Tx-Rx system isolation performance. Equipped with a compact 19-inch rack design and a range of advanced features such as alarm monitoring and adjustable gain, this system provides a seamless and efficient solution for RF combining needs.

Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
Telephone	1 800 263 3275	+1 905 727 0165 ext. 232	Canada: 1 905 726 7676	+1 905 727 0165 ext. 287
			International: +1 905 726 7676	
E-mail	salesusa@sinctech.com	salesemea@sinctech.com	salescan@sintech.com	salesasia@sinctech.com
Product Specifica	tion Sheet	MSH3	Issue: A1	Dated: 6-16-2023

MSH3 Dated: 6-16-2023



A Norsat Company Norsat International Inc.

SPCIFICATIONS

Part Number		MSH3-DA45-1L-115D	
Frequency range (MHz)		380 - 430	
Number of cl	hannels	4	
Tx input pow	rer	100W per CH	
Tx duty cycle		100%	
Tx-Tx bandw	idth	5 MHZ	
Rx-Rx bandw	idth	5 MHZ	
Duplexer spacing		10 MHZ	
Tx insertion l	oss	< 9 dB	
Tx port retur	n loss	> 20 dB	
Rx port retur	n loss	> 20 dB	
ANT port ret	urn loss in Tx/Rx band	> 19 dB	
	Tx-Tx isolation	> 80 dB	
Isolation	Ant-Tx isolation	> 66 dB	
isolation	Tx-Rx isolation	> 80 dB	
	Rx-Rx isolation	> 18 dB	
Rx noise figu	re (at max gain setting)	< 2.5 dB	
Rx system ga	in	0 - 15 dB;	
Rx max Input	· level	Adjustable in 1 dB steps 10 dBm	
Tix max mpar	. 10 001	Power supply failure;	
Alarm		LNA failure	
		LED;	
Alarm output		Dry Relay Form-C	
		Ant: DIN 7/16 Female (4.3-10 optional)	
Connector		Tx: N-Female	
		Rx: BNC-Female	
Test port		BNC-Female connector on front panel; -30 dB coupling	
Power supply		100 - 240 VAC with DC backup (+12 to +18 VDC)	
Operational temperature range		-20° to +60°C (-4° to +140°F)	
Application		Indoor Use Only	
Dimensions (H x W x D)		133 x 483 x 496 mm (5.24 x 19.01 x 19.53 in)	
Enclosure		3RU 19in Rack Mount	
Color		Front panel painted black	
Certification		UL/CSA/CE (Ongoing/pending)	

Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
Telephone	1 800 263 3275	+1 905 727 0165 ext. 232	Canada: 1 905 726 7676	+1 905 727 0165 ext. 287
			International: +1 905 726 7676	
E-mail	salesusa@sinctech.com	salesemea@sinctech.com	salescan@sintech.com	salesasia@sinctech.com
Product Specifica	tion Sheet	MSH3	Issue: A1	Dated: 6-16-2023



ORDERING INFORMATION

Sinclair Part Number	Description
MSH3-DA45-1L-115D	380 - 430 MHz, 4 Channel, 5 MHz BW, 100 - 240 VAC w VDC
WSH3-DA43-1L-113D	backup

NOTE

- 1. Please specify all Tx/Rx frequencies when ordering.
- 2. 2 channel version available upon request, call for details.
- 3. Product may not appear exactly as image

Rearview



Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
Telephone	1 800 263 3275	+1 905 727 0165 ext. 232	Canada: 1 905 726 7676	+1 905 727 0165 ext. 287
			International: +1 905 726 7676	
E-mail	salesusa@sinctech.com	salesemea@sinctech.com	salescan@sintech.com	salesasia@sinctech.com
Product Specifica	tion Sheet	MSH3	Issue: A1	Dated: 6-16-2023