Semiconductor Switch HLS8-6G/UHI-TTL

MTS-No.: 26581

Description

The Semiconductor Switches of this series are designed to work between 100 MHz and 6000 MHz. They cover for example GSM, DECT, UMTS, Bluetooth, WiMAX, Wi-Fi (2.4G / 5G) and all LTE frequency bands.

These units are ultra-high isolation absorptive RF switches. They can easily be controlled by TTL interface.

Technical data:

1 RF-specifications:

1.1	Switch type	HLS8, 8-way absorptive		
1.2	Impedance	50 Ω		
1.3	Input power @ common port @ output ports	 32 dBm max. 26 dBm max. (terminated)		
1.4	Frequency range	100 - 6000 MHz		
1.5	Switching time	<10 µs typ.		
		min.	**typ.**	**max.**
1.6	VSWR in @ 300 - 3000 MHz @ 100 - 6000 MHz		 1.2 1.3	 1.5 1.8
	VSWR out @ 300 - 3000 MHz @ 100 - 6000 MHz		 1.2 1.4	 1.5 2.0
	VSWR terminated		1.2	1.5
1.7	Insertion loss @ 100 MHz @ 3000 MHz @ 6000 MHz		 2.6 dB 4.5 dB 5.8 dB	 3.0 dB 5.0 dB 6.5 dB
1.8	IL derating / 200 MHz		0.11 dB	0.14 dB
1.9	Isolation @ RFC/RFX-RFX @ 100 - 2000 MHz @ 2000 - 4000 MHz @ 4000 - 6000 MHz	 130 dB 120 dB 100 dB	 150 dB 140 dB 120 dB	

2 Connections:

2.1	RF-in- and outputs	9x SMA female
2.2	Control connectors	2x 12 pole male (parallel), type SMC Erni

3 General specifications:

3.1	Internal voltage (TTL)	5 VDC ±5 %
3.2	Power consumption	20 mW max.
3.3	Control interface	3 bit for data (a1, a2, a3) + 3 bit for address (b1, b2, b3) + 1 bit for enable (b4) + 1 bit for blocking (a4), TTL
3.4	Operating temperature	-40 °C - +85 °C
3.5	Storage temperature	-55 °C - +150 °C
3.6	Reference temperature of specifications	+25 °C
3.7	Dimensions (without connections)	105 mm x 115 mm x 12.4 mm (LxWxH)
3.8	Case style	Milled aluminium enclosure
3.9	Colour	SurTec650 (Chrome alloy)
3.10	Weight	330 grams

4 Delivered parts:

HLS8-6G/UHI-TTL

Datasheet

5 Comments:

Warranty	12 months
RoHS-compliant	Yes

6 Recommended accessories:

RF-cables

Controller card for HLS8

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Typical measurements:

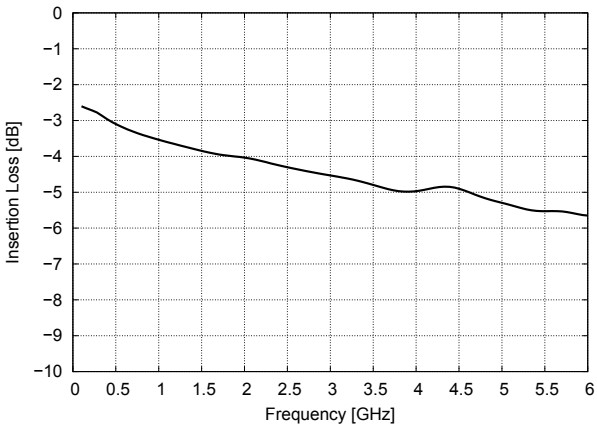

Fig. 1: Input port to output port insertion loss

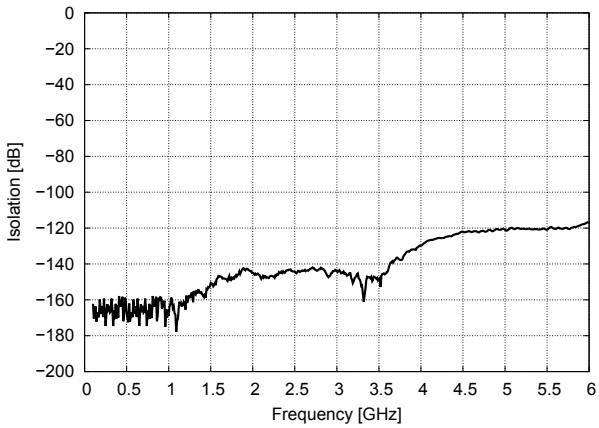

Fig. 2: Isolation between in- and output ports (RFC-RFX)

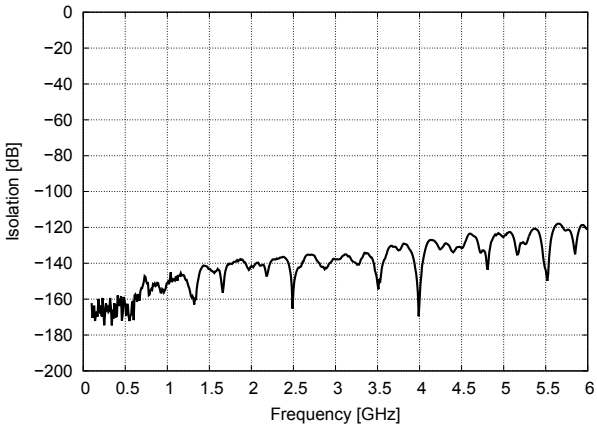

Fig. 3: Isolation between output ports (RFX-RFX)

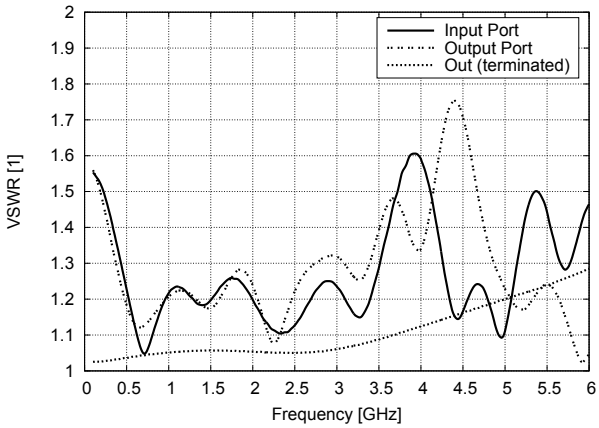

Fig. 4: VSWR for input and output ports

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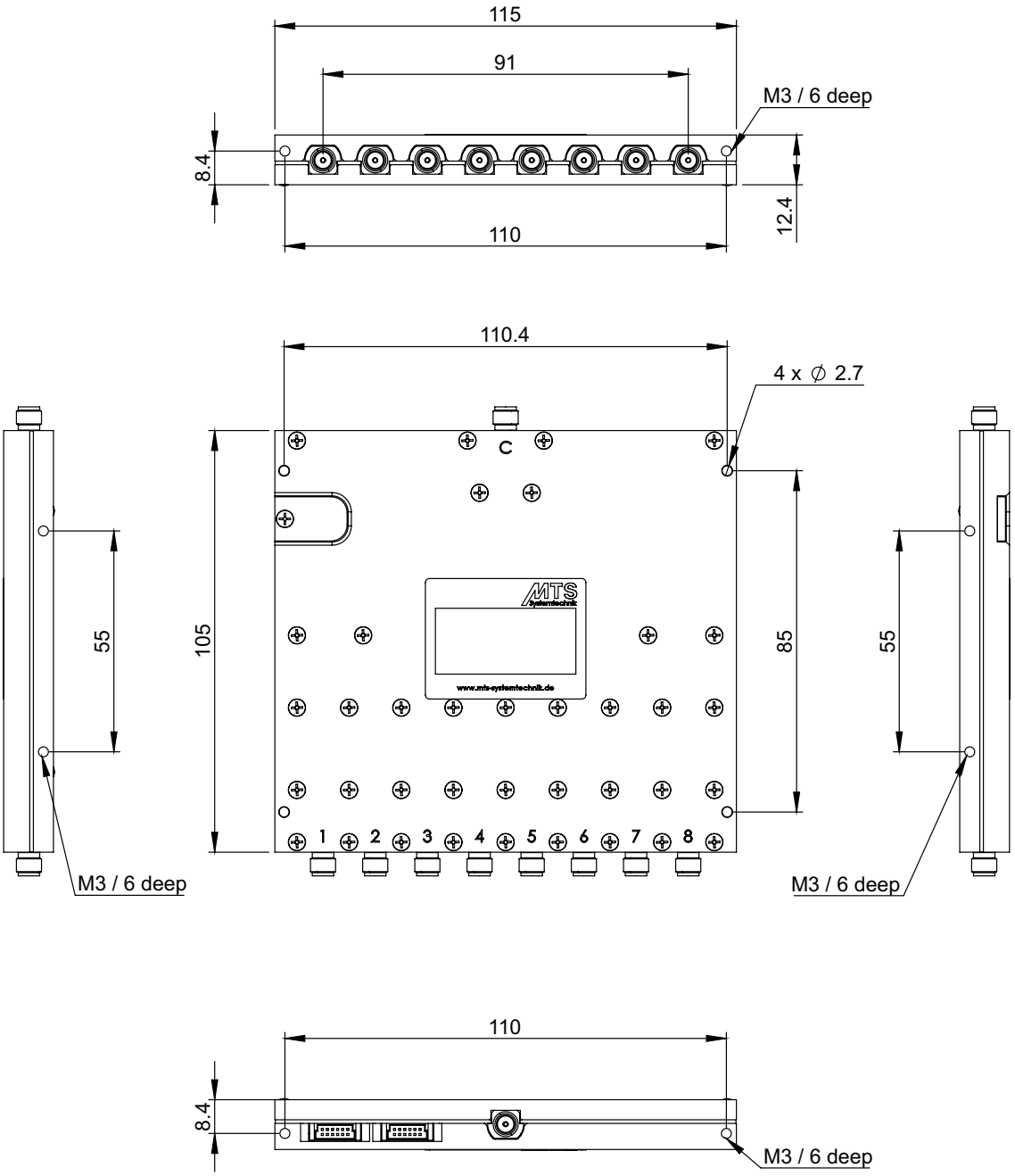
Views:



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