

Semiconductor Switch HLS4-6G/UHI-TTL0

MTS-No.: 27824-01

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	HLS4, 4-way absorptive		
1.2	Impedance	50 Ω		
1.3	Input power @ common port @ output ports	30 dBm max. 22 dBm max. (terminated)		
1.4	Frequency range	100 - 6000 MHz		
1.5	Switching time	<10 μs typ.		
1.6	VSWR in / out @ 400 - 3000 MHz @ 100 - 6000 MHz VSWR out terminated	min.	typ.	max.
			1.3	1.6
			1.4	2.0
		1.2	1.6	
1.7	Insertion loss @ 100 MHz @ 3000 MHz @ 6000 MHz		2.4 dB	3.0 dB
			3.9 dB	4.5 dB
			4.4 dB	5.0 dB
1.8	IL derating / 200 MHz		0.09 dB	
1.9	Isolation @ switched to one port @ RFC/RFX-RFX @ switch is open @ RFC/RFX-RFX @ RFC-RF1		100 dB	130 dB
			100 dB	130 dB
			80 dB	95 dB

2 Connections:

2.1	RF-in- and outputs	5x 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	2 bit for data (a1, a2) + 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)	94.5 mm x 83 mm x 12.4 mm (LxWxH)
3.8	Case style	Milled aluminium enclosure
3.9	Colour	SurTec650 (Chrome alloy)
3.10	Weight	215 grams

4 Delivered parts:

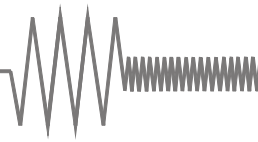
HLS4-6G/UHI-TTL0
Datasheet

5 Comments:

Warranty	12 months
RoHS-compliant	Yes

6 Recommended accessories:

RF-cables
Controller card for HLS4



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Typical measurements:

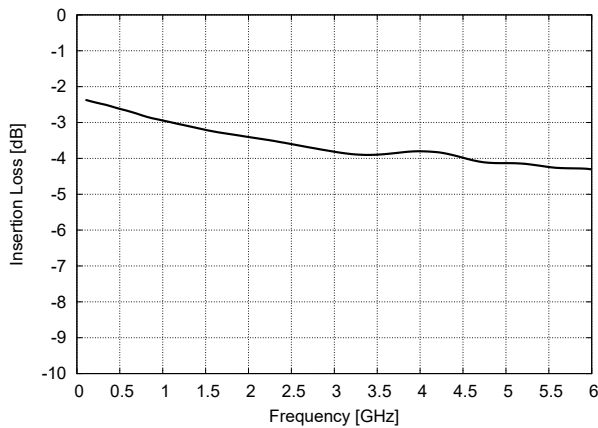


Fig. 1: Input port to output port insertion loss

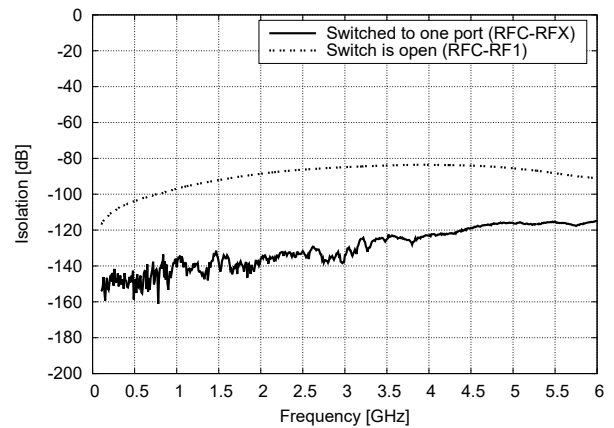


Fig. 2: Isolation between in- and output ports (RFC-RFX)

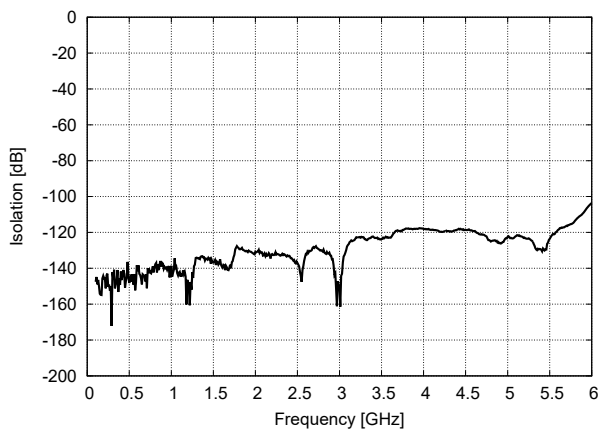


Fig. 3: Isolation between output ports (RFX-RFX)

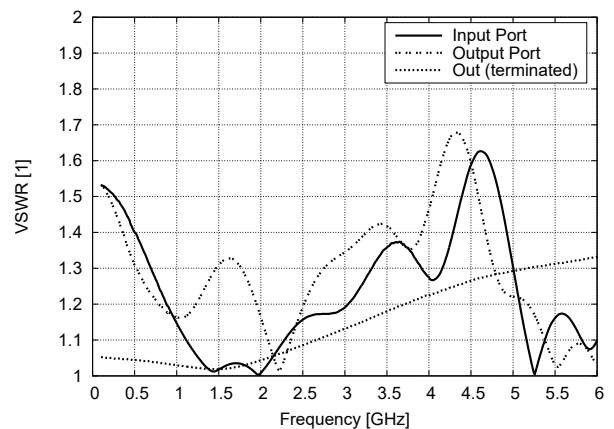


Fig. 4: VSWR for input and output ports

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Views:

