

## Semiconductor Switch HLS8-6G/UHI-TTL0

MTS-No.: 26581-01

### 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	HLS8, 8-way absorptive		
1.2	Impedance	50 Ω		
1.3	Input power	30 dBm max.		
	@ common port	22 dBm max. (terminated)		
	@ output ports			
1.4	Frequency range	100 - 6000 MHz		
1.5	Switching time	<10 μs typ.		
1.6	VSWR in / out	<b>min.</b>	<b>typ.</b>	<b>max.</b>
		@ 300 - 3000 MHz	1.25	1.6
		@ 100 - 6000 MHz	1.35	2.0
	VSWR out terminated	1.2	1.6	
1.7	Insertion loss	@ 100 MHz	2.5 dB	3.0 dB
		@ 3000 MHz	4.5 dB	5.0 dB
		@ 6000 MHz	5.5 dB	6.5 dB
		@ 6000 MHz	5.5 dB	6.5 dB
1.8	IL derating / 200 MHz	0.11 dB		
1.9	Isolation	@ switched to one port		
		@ RFC/RFX-RFX	100 dB	130 dB
		@ switch is open		
		@ RFC/RFX-RFX	100 dB	130 dB
	@ RFC-RF1	80 dB	95 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:

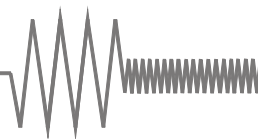
HLS8-6G/UHI-TTL0  
Datasheet

#### 5 Comments:

Warranty	12 months
RoHS-compliant	Yes

#### 6 Recommended accessories:

RF-cables  
Controller card for HLS8



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## Typical measurements:

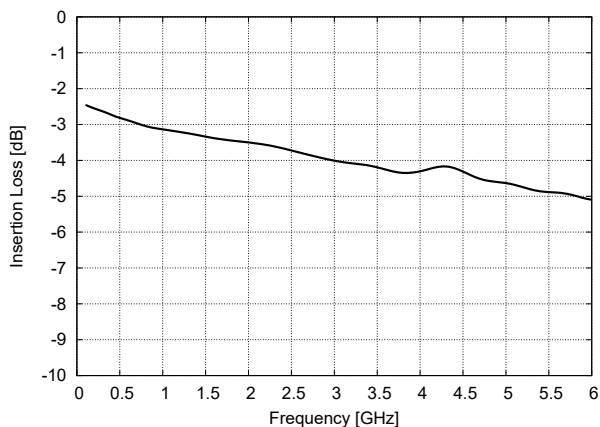


Fig. 1: Input port to output port insertion loss

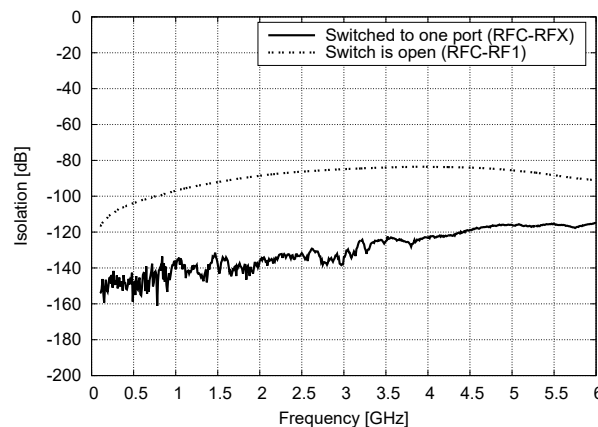


Fig. 2: Isolation between in- and output ports (RFC-RFX)

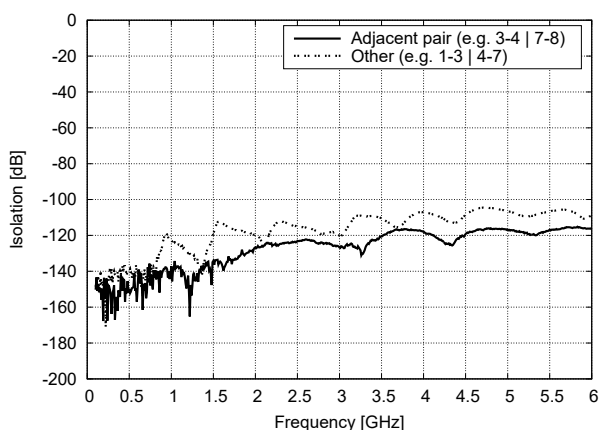


Fig. 3: Isolation between output ports (RFX-RFX)

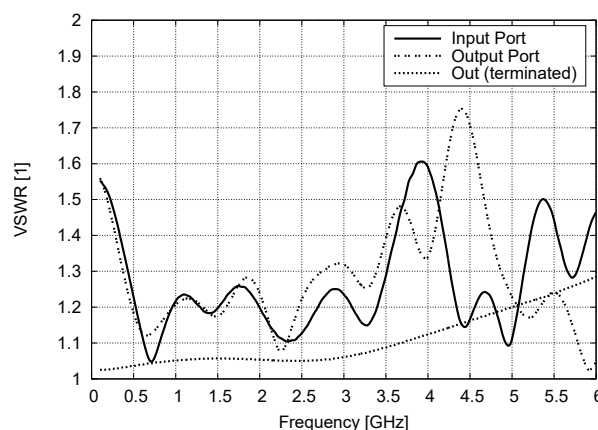


Fig. 4: VSWR for input and output ports

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Views:

