

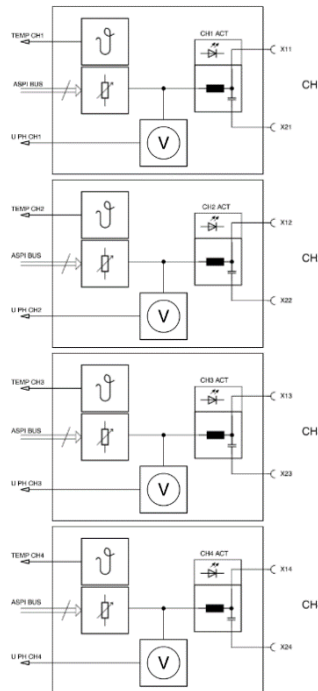
4 Channel Programmable DC Current Sink, Slot-In Module

Features

- programmable DC loads in each channel
- 0...400 mA in 0.5 mA steps
- optical indication of phantom supplies
- slot-in module for SR6-11C system platform
- rugged design

Applications

- broadcast, cellular radio
- wireless communication
- infotainment tests
- product validation
- R&D
- production



Scope

The PT-4CS is specially designed for phantom supply test of infotainment components. The slot-in module is designated for the integration into the SR6-11C system platform. It offers four independent RF channels. Each channel is equipped with a wideband BIAS-T and a current sink, which is programmable in the range 0...400 mA in 0.5 mA steps.

Additional PT-4CS offers a four channel DC voltmeter for measuring the values of the phantom voltages.

Versatile

The PT-4CS is designated for the integration into the SR6-11C system platform in combination with other slot-in modules. In combination with the wideband signal distribution units of the WSDU series and / or the RF switch units of the RSWU series, versatile test solutions for infotainment components can be provided.

Remote Controllable

In combination with the SR6-11C system platform and the SR6-CU controller unit, the PT-4CS is remote controllable via LAN and USB interface. Settings of DC load can be controlled and values of phantom voltage can be queried. The USB interface uses a simple SCPI-oriented ASCII protocol.

Wideband

The RF path of each channel is designed for the frequency range 100 kHz to 8500 MHz. Thereby the PT-4CS is suitable for all common broadcast, cellular radio and wireless standards.

Specifications

Parameter	Symbol	Min	Typ	Max	Unit	Condition
impedance	Z		50		Ohm	
number of channels	n		4			CH1, CH2, CH3, CH4
low frequency	f_{\min}		50	100	kHz	
high frequency	f_{\max}	8000	8500		MHz	
return loss	S_{11}, S_{22}		-25	-14	dB	$f \leq 5 \text{ GHz}$
	S_{11}, S_{22}		-18		dB	$f > 5 \text{ GHz}$
insertion loss	S_{21}		-0.6	-1.0	dB	$f \leq 4 \text{ GHz}$
	S_{21}		-1.5		dB	$f > 4 \text{ GHz}$
channel isolation	S_{12}		-105	-80	dB	$f \leq 6 \text{ GHz}$
	S_{12}		-90		dB	$f > 6 \text{ GHz}$
RF power	P_{in}			+20	dBm	
connectors		SMA female				

Current Sinks

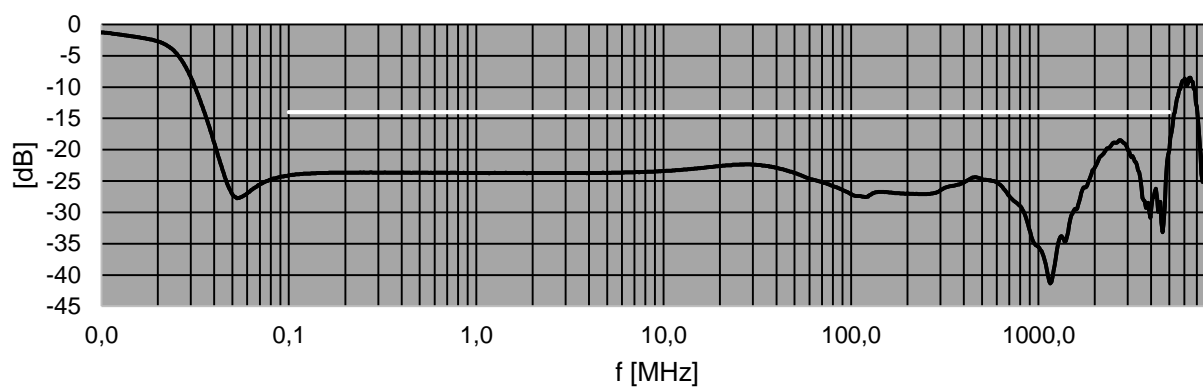
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
voltage range	U_{PH}	0		15	V	18 V absolute maximum
voltage accuracy			± 0.5	± 2.0	%	$U_{\text{PH}} < 5 \text{ V}$
			± 0.5	± 1.0	%	$U_{\text{PH}} \geq 5 \text{ V}$
current range	I_{PH}	0		400	mA	0.5 mA steps
current accuracy			$\pm 0.6 + 1$	$\pm 1.5 + 1$	%+mA	$U_{\text{PH}} \geq 1.5 \text{ V}$
total power dissipation	$P_{\text{max}\infty}$			24	W	shutdown by firmware at 60°C module temperature

Common Specifications

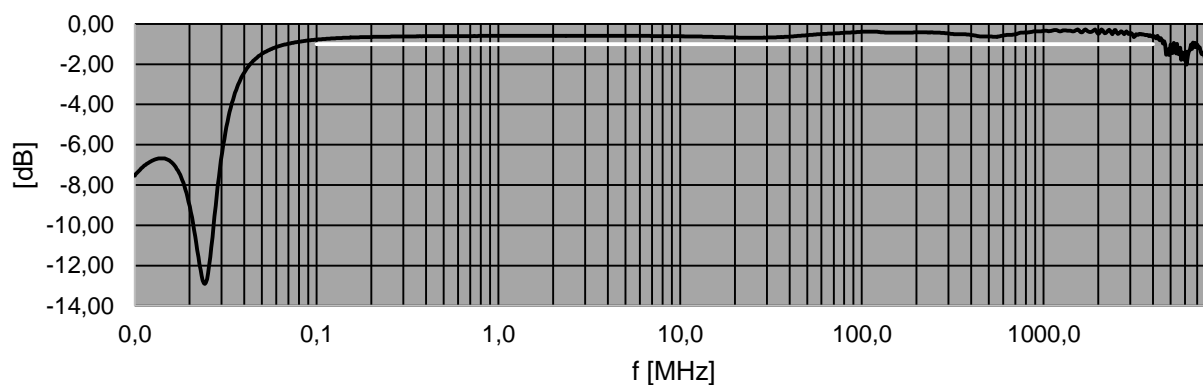
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
power supply	U	23.5	24.0	24.5	V	via SR6-11C
power consumption	P		0.3		W	
dimensions	W x H x D	approx. 262 x 30 x 198			mm	6 U, 6 HP
weight	m		1.4		kg	
operating temp. range	T_o	+5		+60	°C	
storage temp. range	T_s	-40		+70	°C	
ordering information		PT-4CS		1605.2020.1	4 Channel Programmable DC Current Sink, Slot-In module	

S-Parameters (typical responses)

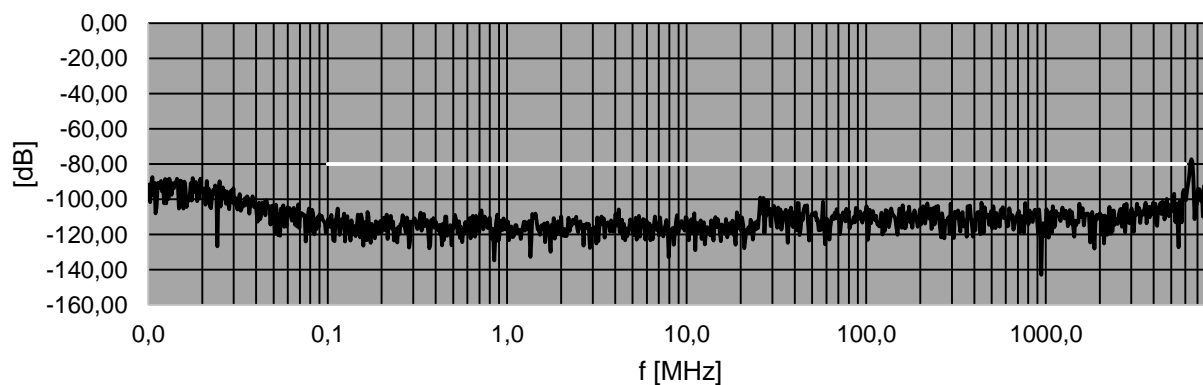
Return Loss (S11)

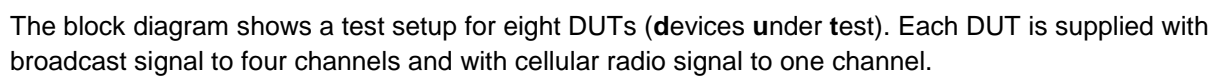


Insertion Loss (S21)

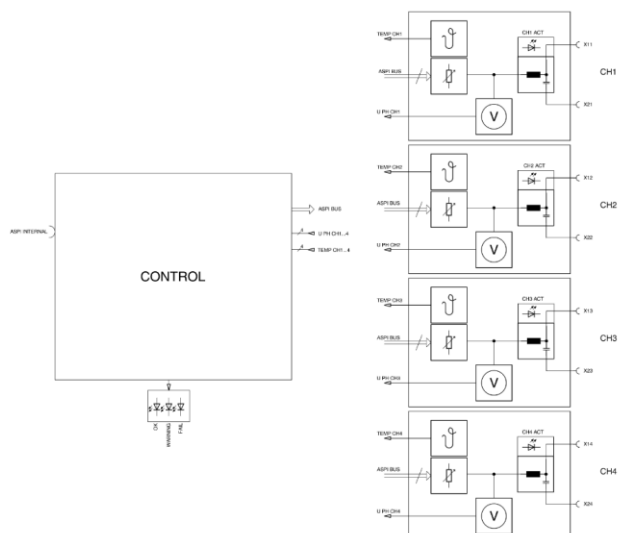


Channel Isolation (Adjacent Channels)





Block Diagram



Front View



Rear View



Related Products

Product	Description	P/N
SR6-11C	System Platform with 11 Slots	1409.1202.1
SR6-CU	Controller Unit with LAN and USB	1409.3000.1
WSDU1X8	High Dynamic 1X8 Multicoupler Slot-In Module 100 kHz ... 4000 MHz	1202.6100.1
WSDU-2X4E+	Two Channel 1X4 plus One Channel 1X2 Multicoupler Module 20... 8000 MHz	1502.6200.1
WSDU-1X8S	8 Way Multicoupler for the Short Wave Range 1.7 ... 30 MHz	1502.6100.1
RSWU-8SPSTS	8 Channel Non-reflective SPST Switch 100 kHz ... 8500 MHz	1408.4000.1
RSWU-4SPDTS	4 Channel Non-reflective SPDT Switch 100 kHz ... 8500 MHz	1408.4020.1
RSWU-2SP4TS+	2 Channel SP4T plus 1 CH SP2T Switches 100 kHz ... 8500 MHz	1408.4040.1
PT-4CM	4 Channel Programmable DC Current Sink module, USB interface	1605.2011.1
FDMX	Frequency De-Multiplexer for Broadcast and Navigation Signals	1310.6003.1
FDMX-PT	Frequency De-Multiplexer for Broadcast and Navigation Signals with programmable current sinks	1310.6003.2