

Wideband RF Sniffer Coupler DC ... 12 GHz

Features

- emulates radio field loss in main path
- up to +35 dBm RF input power (main path)
- 70 dB bi-directional coupling to monitoring port
- compact size

Applications

- sniffing bi-directional communication
- RF communication monitoring between access points



At a Glance

RFCPL6000 from Becker Nachrichtentechnik is a wideband sniffer coupler for monitoring bi-directional RF links in the frequency range up to more than 12 GHz. It is housed in a compact module.

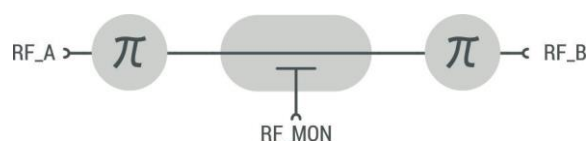
With help of the RFCPL6000 cable-based communication between two access points can be monitored without the influence of other radio signals. It also emulates a RF radio field attenuation between access points.

The maximum input power allows a direct connection of the two access points to the Wideband RF Sniffer Coupler module.

The monitoring port has a coupling loss of approx. 70 dB to the main inputs A and B.

The RFCPL6000 is housed in a milling cover to avoid influences with radio signals from the environment. This ensures reproduceable test scenarios in a wired setup.

Principal Block Diagram



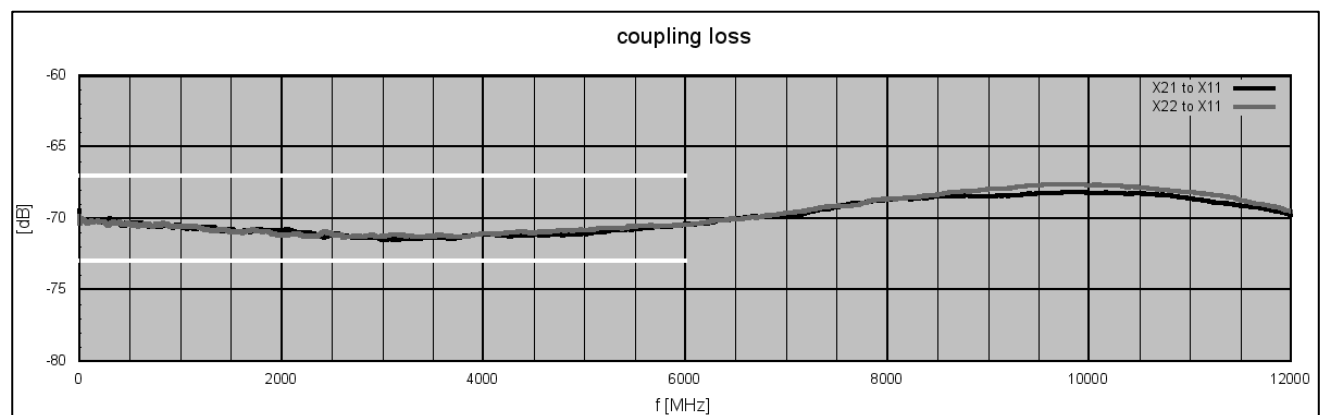
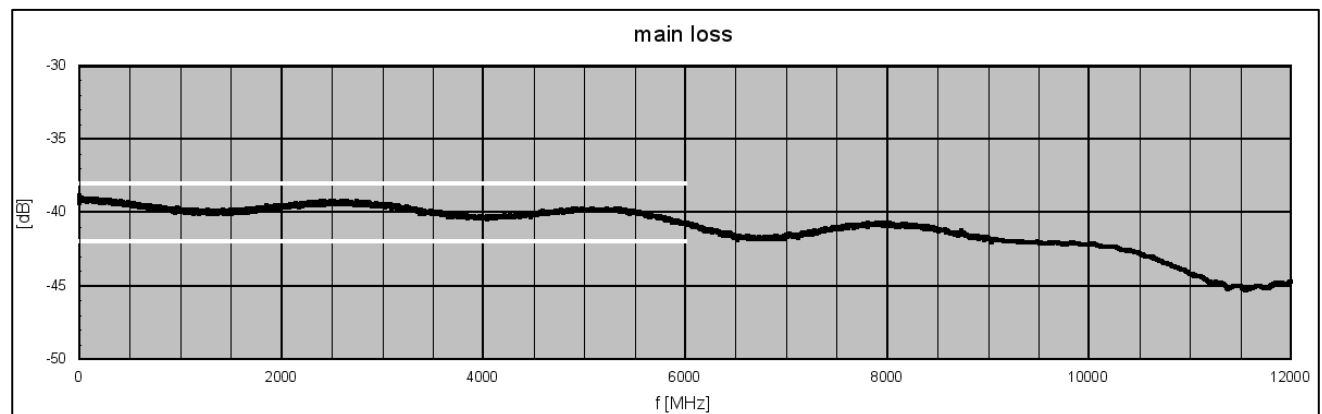
RF_A and RF_B are RF ports with high power capability for a direct connection of e.g., access points. The attenuation between RF_A and RF_B emulates a radio field attenuation. The communication between RF_A and RF_B can be monitored via the RF_MON port.

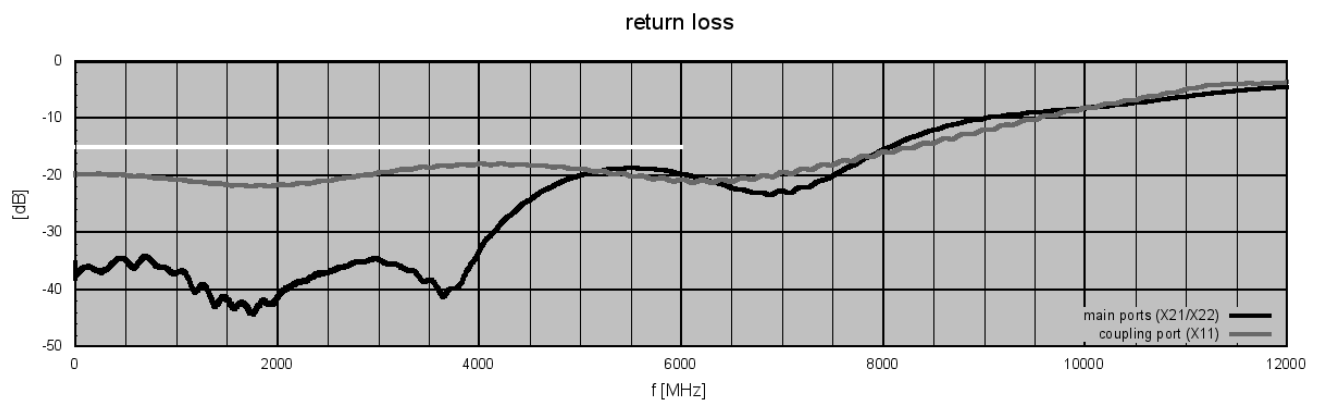
RF Specification

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
impedance	Z_{IN}/Z_{OUT}		50		Ohm	
low frequency	f_{MIN}			DC		
high frequency	f_{MAX}	6	12		GHz	
main loss	S_{21}, S_{12}		-40		dB	
main path return loss	S_{11}, S_{22}		-15		dB	
monitoring coupling	S_{31}, S_{32}		-70		dB	to ports RF_A / RF_B
monitoring port return loss	S_{33}		-15		dB	
RF power	P_{RFAB}			+35	dBm	ports RF_A / RF_B
RF power	P_{RFMON}			0	dBm	RF_MON port
DC voltage	U_{DC}			0	V	all ports
RF connectors		SMA female				

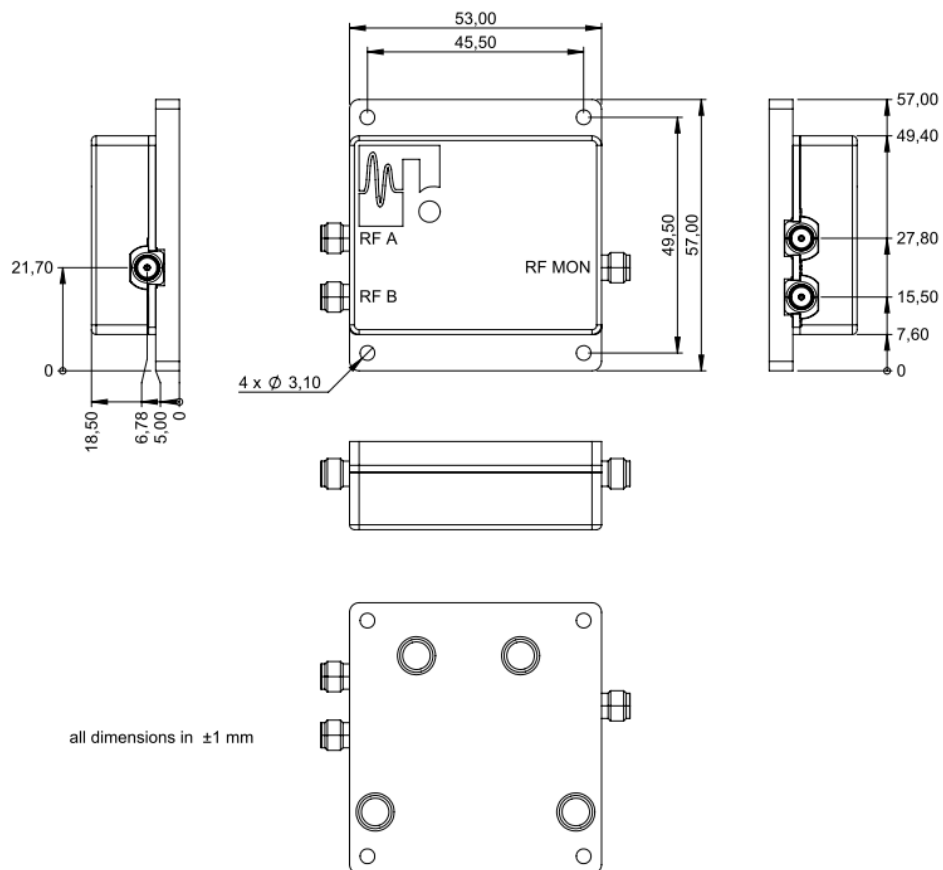
Common Specification

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
dimensions	W x H x D	approx. 53 x 19 x 57			mm	
weight	m		100		g	
operating temp. range	T_{AMB}	5		+70	°C	module surface
storage temp. range	T_s	-40		+70	°C	
ordering information	RFCPL6000			2107.4001.1		

S-Parameters



Dimensions



Appearance

