

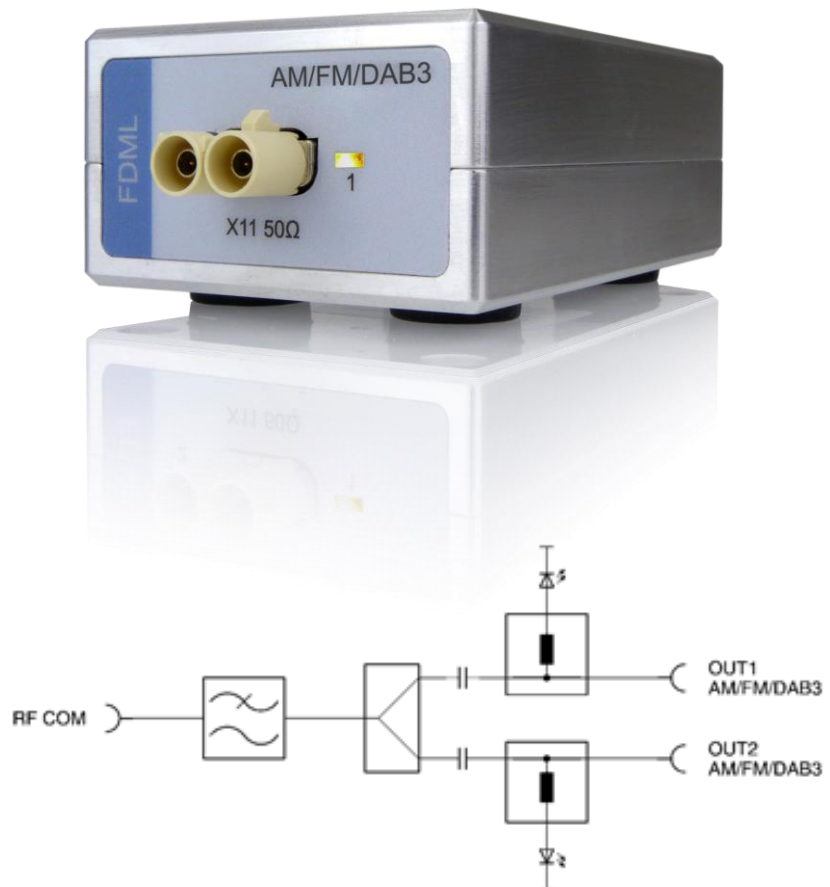
Dual Port Adapter with Internal DC Loads for AM / FM and DAB3 Broadcast Signals

Features

- internal DC loads for phantom voltage supplies
- optical indication of phantom voltage
- compact and rugged design

Applications

- AM, FM, DAB3
- automotive infotainment tests
- R&D
- production



Overview

The FDML complements the WSDU broadband signal distributions by a compact, cost saving, dual port adapter for AM/FM/DAB3 broadcast signals. FDML separates one common signal line into two outputs with identical signals.

Integrated DC Loads

FDML provides a fixed DC load at each output to emulate the behaviour of active antennas.

Optical Indication

The presence of phantom voltages will be indicated for each channel by an LED on the front panel of the FDML.

RF Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
impedance	Z_{in} / Z_{out}		50		Ohm	
AM low frequency	f_{AMmin}		36 ¹	150	kHz	AM
AM high frequency	f_{AMmax}	30	76		MHz	
FM frequency range	f_{FM}	76		108	MHz	
DAB3 frequency range	f_{DAB3}	174		240	MHz	
return loss	S_{11}, S_{22}		-17	-14	dB	
insertion loss	S_{21}	-4.5	-3.5	-3.0	dB	AM
	S_{21}	-4.1	-3.6	-3.1	dB	FM
	S_{21}	-4.5	-4.0	-3.4	dB	DAB3
output isolation	S_{23}		-20	-17	dB	AM
	S_{23}		-21	-19	dB	FM
	S_{23}		-29	-20	dB	DAB3
suppression	a_{DVB-T}		-80	-30	dBr	$474 \text{ MHz} \leq f \leq 2345 \text{ MHz}$
RF input power	P_{in}			+10	dBm	
DC current (phantom)	I_L	32	35	38	mA	$U_{Phantom} = 8.5 \text{ V}$
DC voltage (phantom)	U_L	-4	8.5	10	V	$R_L = 248 \ \Omega, 400 \text{ mW}$
connectors		Dual Fakra B plug (male)			colour: white	

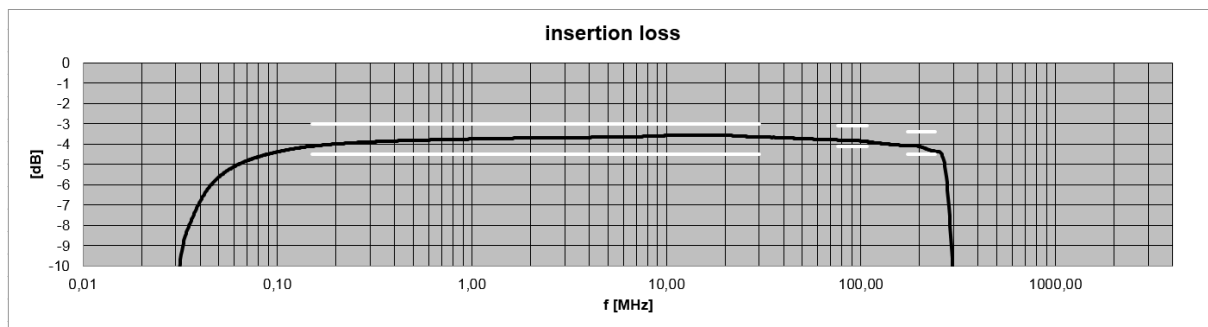
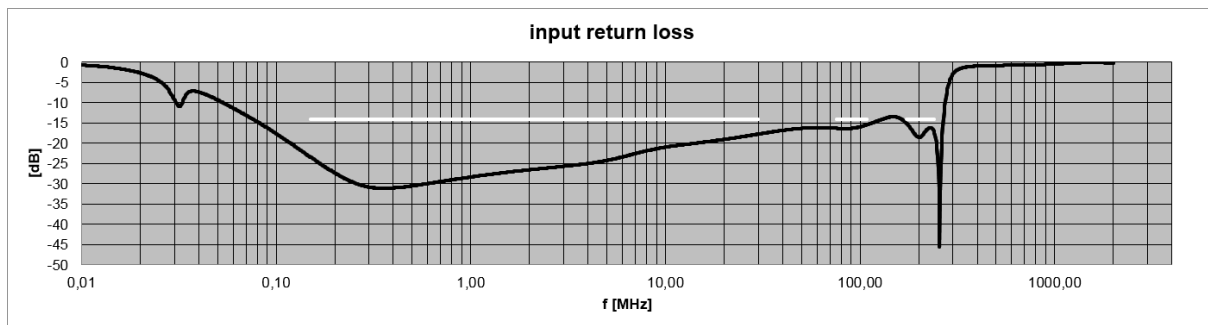
*: related to S_{21} @ 200 MHz

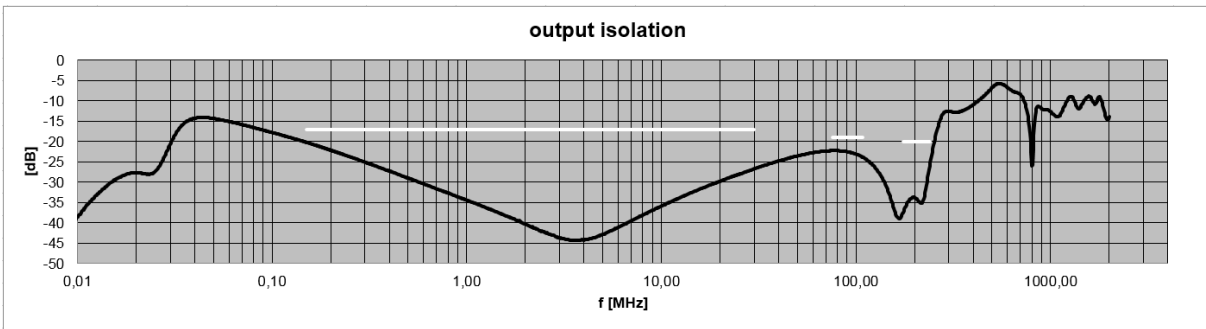
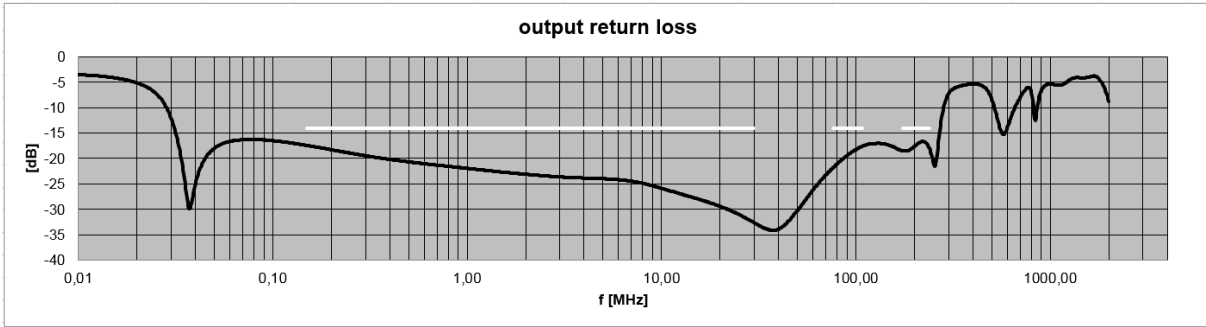
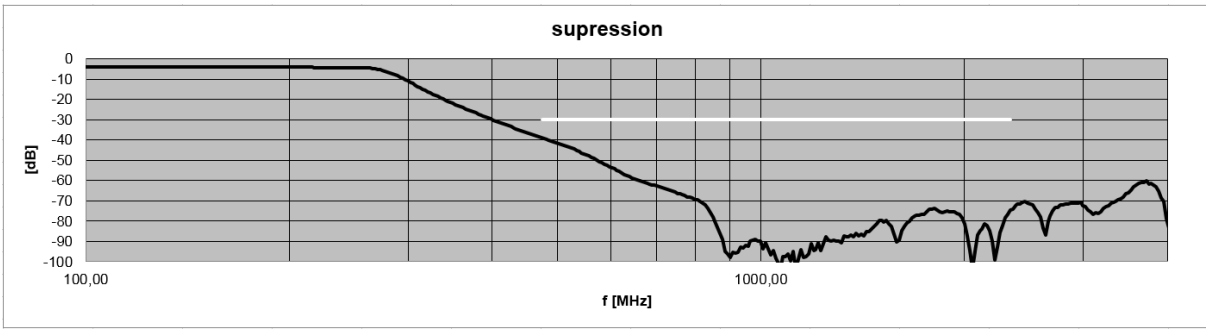
Common Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
dimensions		approx. 120 x 59 x 36			mm	incl. feet and connectors
weight	m		330		g	
Operating temp. range	T_o	+5		+40	°C	
Storage temp. range	T_s	-40		+70	°C	
Ordering information		FDML		1310.6103.2	Including Dual Fakra Cable, l = 1 m	

Note 1: included accessories

S-Parameters (typical responses)

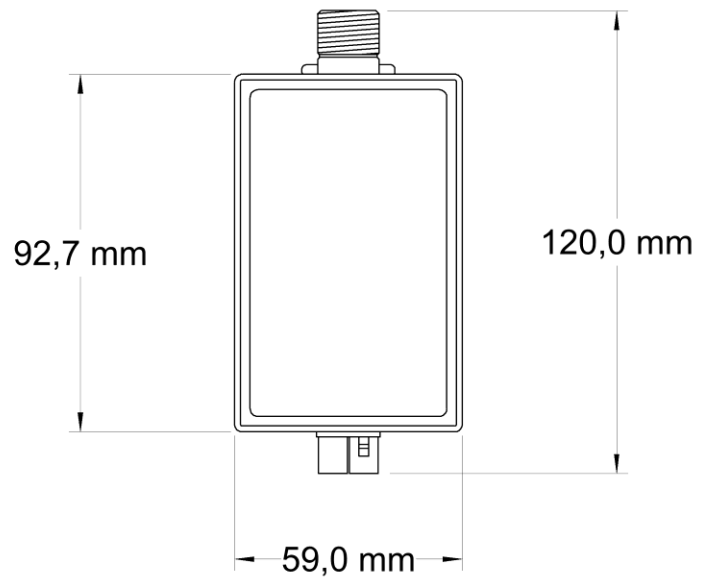
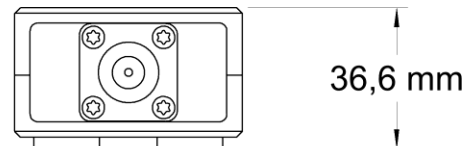
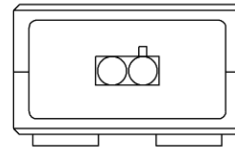
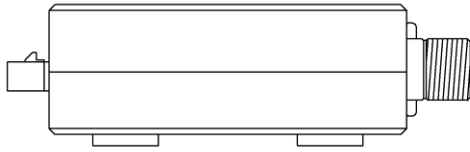




Front / Rear View



Mechanical Drawing



all dimensions in mm
± 2 mm

Related Products

Product	Description	P/N
FDMX	Frequency Demultiplexer for all common broadcast and navigation standards with fixed DC loads	1310.6003.1
FDMX-PT	Frequency Demultiplexer for all common broadcast and navigation standards with programmable DC loads	1310.6003.2
FDML-CS	Dual Fakra Cable, l = 1 m	1310.0117.1