Elektromechanik
Entwicklungs- und Produktions GmbH

RF Power Splitter 2-way 0°/Combiner
PD 50

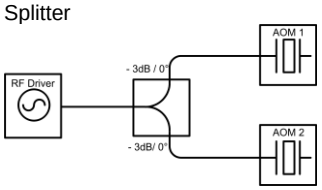
Features:

- ✓ 50 Watts Splitter
- ✓ 2 x 25 Watts Combiner
- ✓ 5 MHz - 50 MHz
- ✓ 50 MHz-100 MHz
- ✓ Passive fully reciprocal
- ✓ compact case style

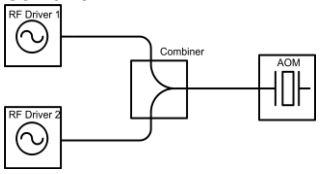
Application:

RF power splitter are mainly used to control two loads (AOMs) driven by a single RF source. Due its passive construction, it can also operate as a combiner. In this case, two RF sources can be combined to a single output for AOM control.

Splitter



Combiner



General:

The PD 50 series is available in two frequency ranges to achieve better frequency response. It can convert RF power from a single 50 Ω source into two outputs, which have (- 3dB) half power with the same phasing. Hereby, the cabling must be always adequately based to RF application. Only identical output cabling with equal length ensures correct phasing. In the event of a mismatch, an internal resistance compensates the reflected power from each output port. It can also operate as a combiner, whereby two independent RF signals different by frequency or phase-shifted be coupled to a single output.

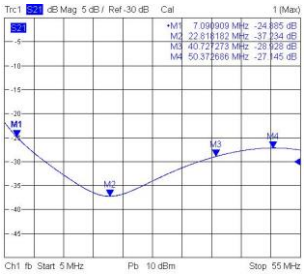
Properties:

50-100MHz Item PD 50-100

VSWR

Insertion loss

Isolation / cross talk



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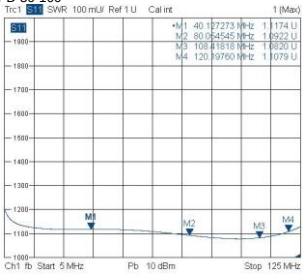

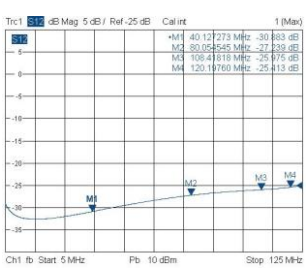

Controls:
Options:
Accessories: Cables and adaptors RF sources and dummy loads

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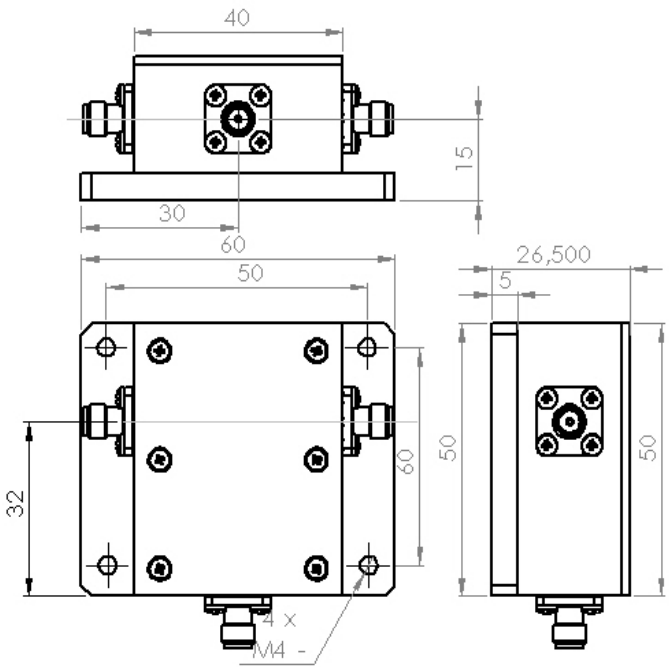
Specification:

Electrical		MIN	Max	Unit
Impedance			Nom. 50	Ω
Input power as Splitter		na	50	W
Output port 1 / port 2			-3.4	dB
Input power as combiner			25	W
Power dissipation (in case of mismatch)		na	25	W
VSWR			1.2	
Operating frequency	Item PD50-50	5	50	MHz
	Item PD50-100	45	100	MHz
RF-Properties				
Insertion loss	Item PD50-50	0.2	0.4	dB
	Item PD50-100			
Isolation	Item PD50-50	25	30	dB
	Item PD50-100	20	25	dB
Insertion loss Combiner			-3.4	dB
Amplitude Balance			0,3	dB
Phase Balance			4	°
Thermal				
Temperature drift		-	0,051	$^{dB}/_{K}$
Ambiance /Installation/Transport				
Storage temperature		-40	+160	°C
Relative humidity in storage			90	%
Ambient temperature during operation		+5	+45	°C
Relative humidity during operation			75	%
Ambient conditions, room air		Atmospheric	above sea level 3000m max.	
Mechanics				
Body Dimensions L x W x H		-	40 x 50 x 26.5	mm
Weight (heat sink dependent)		60	85	g
Connector Input		SMA		
Connector Ports		SMA		

Dimension: (mm)



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