

Decoupled Power Splitter

806 – 960 MHz

The decoupled power splitter can be used:

- for power distribution, e. g. from one common antenna to several receivers with frequency spacing as narrow as desired,
- for power distribution, for example: from one transmitter to several outputs,
- for decoupled combining of several transmitters with frequency spacing as narrow as desired (at 4.7 dB or 6 dB loss),
- for decoupled combining of several transmitting/ receiving units, whose integrated duplexers are within the same frequency range.

Function:

The decoupled 3:1 power splitter has 3 inputs, one output, and 3 absorber ports. The decoupled 4:1 power splitter has 4 inputs, one output, and 4 absorber ports. The inputs are only decoupled if the absorber ports are terminated with 50 Ω loads of suitable power.

Dimensioning the external absorbers:

The absorbers of the 3:1 power splitter must be dimensioned so that at least 2/3 of the power fed into the inputs can be absorbed.

Example: If a power of 50 W is fed into every input, then the absorbers must be able to absorb 33 W each.

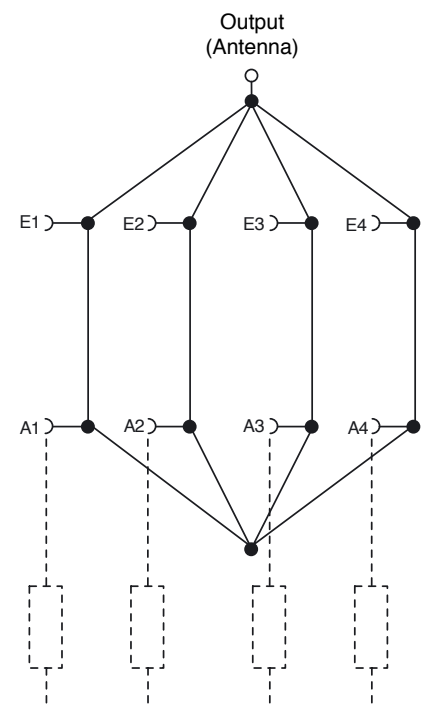
The absorbers of the 4:1 power splitter must be dimensioned so that at least 3/4 of the power fed into the inputs can be absorbed.

Example: If a power of 50 W is fed into every input, then the absorbers must be able to absorb 37 W each.



729 812

1:4 power splitter 729 812



Connectors E1 ... E4: inputs, decoupled
Connectors A1 ... A4: external 50-Ω absorbers

Technical Data

Type No.	728 044 1:3 power splitter	729 812 1:4 power splitter
Power splitting ratio	1 : 3	1 : 4
Frequency range	806 – 960 MHz	
Power dividing loss (including insertion loss)	< 5.5 dB	< 6.5 dB
Isolation	> 25 dB	
VSWR	< 1.2	
Impedance	50 Ω	
Input power	< 100 W each input	
Connectors	N female	
Application	Indoor	
Mounting	With 2 screws (max. 4 mm diameter)	
Weight	0.5 kg	0.7 kg
Packing size	175 mm x 95 mm x 140 mm	
Dimensions (w x h x d)	74 mm x 68 mm x 140 mm 114 mm x 68 mm x 140 mm (including connectors)	

Note: VSWR and attenuation values are measured when the remaining ports are terminated with 50-Ω loads.

936.1419/c Subject to alteration.