

RYMSA RF manufactures a wide range of power splitters for varied uses. As an essential component to build broadcast antenna systems, the power splitters are designed and manufactured to guarantee most stringent performances, minimizing VSWR and insertion loss. Broadband features across each broadcast working band (B-I, B-II, B-III, B-IV/V) lead to a high versatility for multichannel applications.

In general terms, the power dividers are constructed as the combination of junction boxes with multi-stage impedance transformers, which can be supplied in two different topologies: Series and Parallel transformer. The latter are maximizing peak power admission, so that they are especially suitable to deal with digital applications.

RYMSA RF provides symmetrical and asymmetrical power dividers. The latter are utilized to supply unequal power splitting to the unitary radiators composing the antenna system. This allows the implementation of customized horizontal radiation patterns and it is also useful when an exhaustive control of the vertical radiation pattern is desired. A very wide range of asymmetrical power ratios can be provided for all coaxial sizes and frequency ranges.

Electrical Specifications

Frequency range	VHF band I	54-88 MHz or sub-bands / DT11 Series
	VHF Band II	87.5-108 MHz / DT12 Series
	VHF Band III	174-230 MHz / DT13 Series
	UHF	470-860 MHz / DT15 Series
Impedance		50 Ohm
VSWR	VHF	< 1.05:1
	UHF	< 1.06:1
Insertion loss		< 0.05 dB
Number of outputs		2 up to 8
Power unbalance between output ports		± 0.2 dB
Manufacturing topology	VHF	Series transformer
	UHF	Series Parallel transformer High power
Input & Output connectors		From DIN 7/16 up to EIA 9 3/16"



Mechanical & Environmental

Pressurization (typical operating value)		0.5 bar
Materials	Outer conductor	Brass / copper
	Inner conductor	Silver plated aluminium or brass
	Isolators	PTFE
	Finishing	Long lasting outdoor grey paint
	Screws	Stainless steel
Environmental specification		Indoors or Outdoors
Temperature range		-40°C to +80°C