

TELMEC was founded in Florence in 1976 as a company operating in the high precision mechanical and electromechanical sector.

Its main mission since then has been the design of filtering and combining products for radio signals in the different communication sites.

TELMEC therefore develops and manufactures autonomously systems and components in the radio frequency field which are needed to operate an interference free service from frequency crowded radio sites. Our know how is the result of a forty year long research and development activity in the field of Ground to Air Radio Communications both in the civilian and the military market.



TELMEC focus is on some specific areas of activity:

- Development of the most cost effective radio frequency system solution based on customer's requirements:
- Achievement of optimum electrical performance and thermal stability through a careful material selection and thoughtful construction;
- Standard high quality production of filters, combiners, couplers for the radio site. We constantly make use of customer's feedback from the field to improve our quality level;
- Utilization of state of art electronics for the control of the automatic tuning of the filters;
- Capability of developing customized solutions;
- Punctual delivery of products which are tuned in factory according to the configuration supplied by the customer;.

The strength of our organization is therefore based on the quality of our products and our constant support to the customer.

The quality concept comes easy to our company as our high standards for the manufacturing process must include stringent control of the dimensions and surface finish of the components used.

TELMEC is certified according to the ISO 9001:2008 Quality Control standard.



FILTERS AND COMBINERS FOR ATC APPLICATIONS



Groups of transmitters and receivers at a base station are coupled to a single antenna with a multicoupling network thus greatly improving station efficiency.

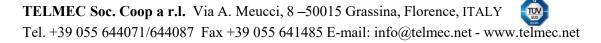
By providing appropriate filters we achieve a high degree of isolation between transmitter and receiver thus obtaining the required selectivity with low insertion loss.

We provide a wide range of products built with mechanical cavities. The products include band reject, band pass, notch filters and combiners both in the VHF and UHF frequency range.

The combiners are implemented assembling cavities of different sizes. Different configurations are used such as starpoint, manifold and double bridge.









FILTERS AND COMBINERS FOR ATC APPLICATIONS

Telmec designs ad develops different kinds of cavity resonators, with different size and different shape, both in VHF and UHF bands.

These cavities are the basic modules used to realize bandpass filters, combiners and band reject filters.

The cavities used in the VHF range are:

VHF 085	Rectangular 085 Cavity	85x216 mm (double)	AST-1506
VHF 120	Rectangular 120 Cavity	108 x 122 mm	AST-1034
VHF 165	Rectangular 165 Cavity	165 x 210 mm	AST-1360
VHF 180	Rectangular 180 Cavity	180 x 165 mm	AST-1023
VHF 210	Square 210 Cavity	210 x 210 mm	AST-0610
VHF 280	Rectangular 280 Cavity	280 x 210 mm	AST-1003
VHF 100	Round 100 Cavity	120 mm diameter	AST-0108
VHF 200	Round 200 Cavity	200 mm diameter	AST-0152

The cavities used in the UHF range are:

UHF 120	Rectangular 120 Cavity	108 x 122 mm	AST-1052
UHF 210	Square 210 Cavity	210 x 210 mm	AST-1193
UHF 280	Rectangular 280 Cavity	280 x 210 mm	AST-1111
UHF 100	Round 100 Cavity	120 mm diameter	AST-0149







MANUAL TUNING - SQUARE AND RECTANGULAR CAVITY

VHF Bandpass filter – 85 mm cavity	7
VHF Bandpass filter – 120 mm cavity	8
VHF Bandpass filter – 165 mm cavity	9
VHF Bandpass filter – 180 mm cavity	10
VHF Bandpass filter – 210 mm cavity	11
VHF Band reject filter – 210 mm cavity	12
VHF Notch filter – 210 mm cavity	13
VHF Star combiner – 120 mm single cavity	14
VHF Star combiner – 165 mm single cavity	15
VHF Star combiner – 210 mm single cavity	16
VHF Star combiner – 120 mm double cavity	17
VHF Star combiner – 165 mm double cavity	18
VHF Star combiner – 210 mm double cavity	19
VHF Manifold Combiner – 210 mm double cavity	20
VHF Double bridge combiner – 180 mm cavity	21
VHF Double bridge combiner – 280 mm cavity	22
UHF Bandpass filter – 120 mm cavity	23
UHF Bandpass filter – 210 mm cavity	24
UHF Star combiner – 120 mm single cavity	25
UHF Star combiner – 210 mm single cavity	26
UHF Star combiner – 120 mm double cavity	27
UHF Star combiner – 210 mm double cavity	28
UHF Double bridge combiner – 280 mm cavity	29



SUMMARY

MANUAL TUNING - ROUND CAVITY

VHF round cavity – filters and combiners	30
UHF round cavity – filters and combiners	

AUTOMATIC TUNING

Bandpass filter - VHF 85 mm cavity	
Bandpass filter - VHF 210 mm cavity	
Bandpass filter - UHF 210 mm cavity	