

AWS/BAS Co-Site Interference Mitigation Filter

Passband: 2097.0 – 2109.5 MHz



Features

- Passes BAS channel A7 frequencies (2097.5 MHz to 2109.5 MHz)
- 60 dB of rejection at AWS1 frequencies (2110.6 MHz to 2450.0 MHz)
- Small (6.33" X 4.43" X 2.29") and light weight (< 4 lbs.)
- Sealed for outdoor exposure – can be installed indoors or outdoors

Applications

- Base Stations and Towers for Television, Mobile News Gathering, and Broadcast Wireless Services

API Technologies' model CMF905 is a wireless communications bandpass filter that eliminates Advanced Wireless Service (AWS) interference at Electronic News Gathering-Receive Only (ENG-RO) BAS channel A7. The CMF905 is designed for use by television stations, broadcast wireless services, ENG-RO and cellular base stations transmit signals to mitigate the interference of cellular frequencies above 2110.6 MHz. As mandated by the FCC, cellular service providers must make timely adjustments in their systems to reduce interference with television station communication links using mobile news gathering services.

The close proximity of the lower AWS1 frequency block (2110.6 to 2121.5 MHz) can cause interfering signals to the BAS Channel A7 communications link. This is especially common in metropolitan areas with congested electromagnetic spectrums. API's wireless communications filter provides 60 dB of rejection from 2110.6 MHz to 2121.5 MHz (AWS1), while passing BAS channel A7 frequencies (2097.5 MHz to 2109.5 MHz). This allows local television stations the ability to communicate clearly using voice and video to and from their mobile units without experiencing interference.

Technical Specifications

Parameter	Typical	Units
Passband	2097 to 2109.5	MHz
Insertion Loss	1.5 dB max 2097.0 – 2109.0 MHz	
	3.0 dB max 2109.0 – 2109.5 MHz	
	3.5 dB* max 2109.0 – 2109.5 MHz	
Return Loss	18 Min.	dB
Rejection	60 dB min 1700.0 – 2082.5 MHz	
	60 dB min 2110.6 – 2450.0 MHz	dB
	55 dB min* 2110.6 – 2450.0 MHz	

* Performance over Extended Temperature Range

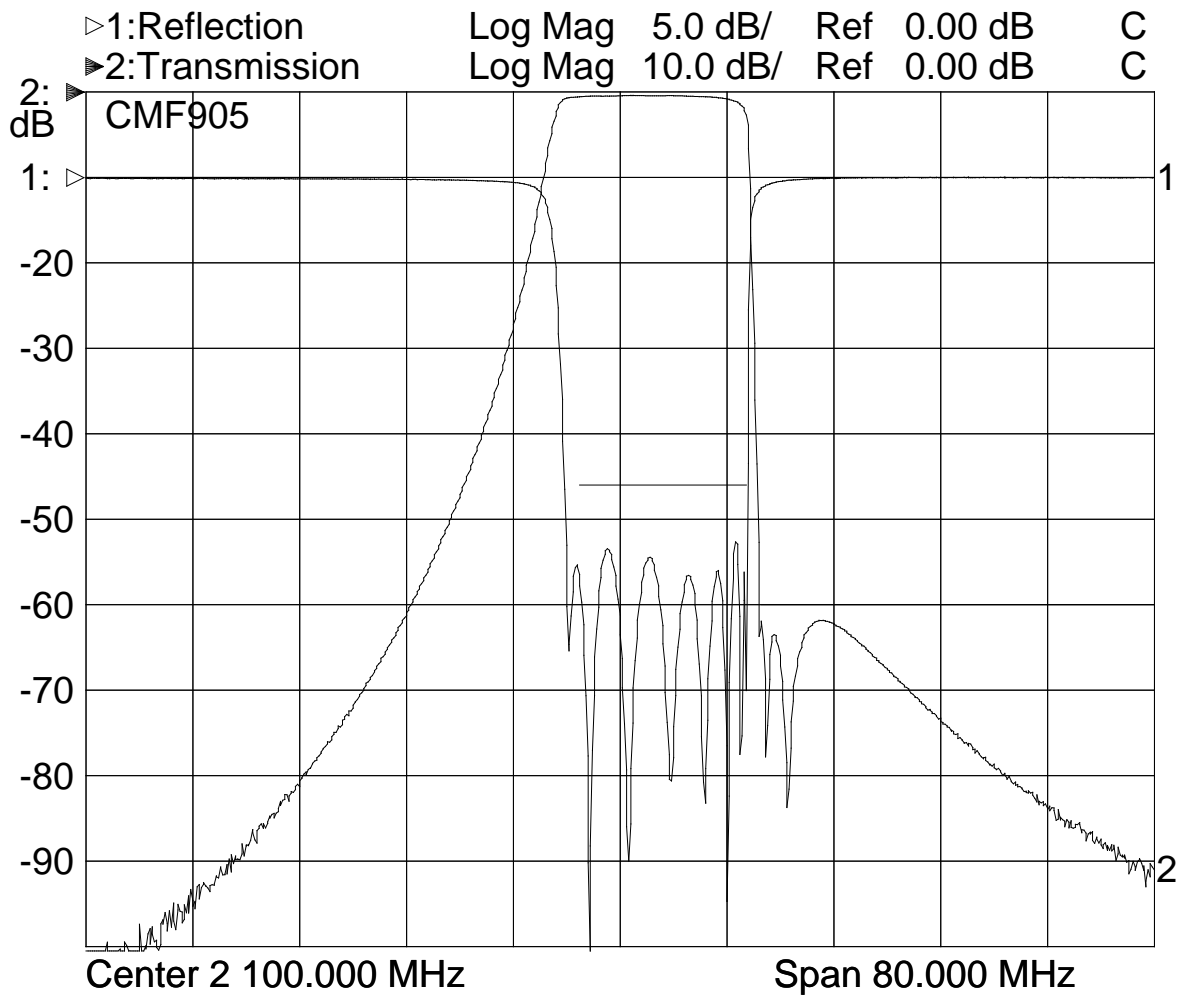
Mechanical Specifications

Weight	< 4 lbs.
Finish	Gloss White Polyurethane Paint
Enclosure	6.33" X 4.43" X 2.29"
Connectors	Type N Female

Environmental Specifications

Operating Temperature	+10°C to +40°C
Extended Temperature Range	-10°C to +10°C
Weatherization	Sealed to IP66

Typical Performance



1:Mkr (MHz)	dB	2:Mkr (MHz)	dB
1: 2097.0000	-23.223	1: 2097.0000	-0.567
2> 2109.0000	-25.674	2: 2109.0000	-1.346
3: 2109.5000	-30.008	3: 2109.5000	-2.709
4: 2110.6000	-0.664	4> 2110.6000	-62.514
		5: 2082.5000	-65.537

Outline Drawing

