

# Class A Active Crystal Filter, VHF & UHF Signal Boosters



## General Information

Westell's Active Crystal Filter (ACF) signal boosters represent an innovative solution to the problem of tight channel spacing. These boosters provide field adjustable 25KHz filters that can accommodate UL to DL spacing as close as 100KHz. Ideal for those applications with complex VHF channel spacing or UHF T band with limited guardband.

Westell's ACF Signal Boosters supports 1 and 2 channel (uplink and downlink), near/far mitigation, an integrated spectrum analyzer, and is compliant with NFPA code.

## Frequency Ranges

- 136-174 MHz
- 450-512 MHz

## Product Highlights

- Digital Class A
- Channel Selective
- 10 or 13 dBm
- Available in 1 and 2 filter units
- NFPA 1221 compliant
- IP67/NEMA 4X enclosure
- Uplink and Downlink squelch, per channel
- UL Listed
- Independent power and gain control per filter
- 80 dB Gain
- Integrated spectrum analyzer
- Dry Contacts for fire panel connection
- Supports SNMP
- Web-Based GUI

## Supported Alarms

- Power Amplifier Status
- Power Supply Failure
- AGC
- Temperature
- RF Overdrive
- Isolation / Oscillation
- Donor Antenna Failure



CS33-13A-ANA - Pictured

## Electrical Specifications

Downlink Output Power	1 channel, 13 dBm 2 channel, 10 dBm
Uplink Output Power	1 channel, 13 dBm 2 channel, 10 dBm
Number of Passbands	1, 2
Gain	80 dB
Gain Attenuation Range	28 dB, 1 dB increments
Passband Guardband	25 KHz <100 KHz
IMD	<-13 dBm
Noise Figure	< 9.0 dB Max @ max gain
Delay	- -
Input Power (w/o Damage)	0 dBm Uplink (Max) -35 dBm Downlink (Max)
VSWR	01.5:1 max
Commercial Power Requirements	AC (110/220 VAC) or DC (+24VDC to -48VDC)
Power Consumption	1 channel: 200W 2 channels: 230W



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## Mechanical Specifications

Dimensions (LxWxD)	30 x 24 x 12 inches
Weight	--
Cooling	Passive
Weatherproofing	IP-67/NEMA 4X
Connectors	
Antenna Ports	N-Type Female
User Interface	Ethernet or USB
Alarm Relay	8-Wire Dry Contact Terminal Block (Max current 500mA)
Operating Temperature	-25° to +55° C
Mounting	Wall, Rack or Pole mounting



## Ordering Information

VHF 137-164 MHz, CLASS A	
Part Number	Description
CS33-13A-ANA	ACF 1 Channel, 80 dB gain, 13 dBm, AC Power
CS33-13A-AND	ACF 1 Channel, 80 dB gain, 13 dBm, DC Power
CS33-10A-BNA	ACF 2 Channel, 80 dB gain, 10 dBm, AC Power
CS33-10A-BND	ACF 2 Channel, 80 dB gain, 10 dBm, DC Power
VHF 155-174 MHz, CLASS A	
CS33-13B-ANA	ACF 1 Channel, 80 dB gain, 13 dBm, AC Power
CS33-13B-AND	ACF 1 Channel, 80 dB gain, 13 dBm, DC Power
CS33-10B-BNA	ACF 2 Channel, 80 dB gain, 10 dBm, AC Power
CS33-10B-BND	ACF 2 Channel, 80 dB gain, 10 dBm, DC Power

UHF 470-488 MHz, CLASS A	
CS33-43T-ANA	ACF 1 Channel, 80 dB gain, 13 dBm, AC Power
CS33-43T-AND	ACF 1 Channel, 80 dB gain, 13 dBm, DC Power
CS33-43T-BNA	ACF 2 Channel, 80 dB gain, 10 dBm, AC Power
CS33-43T-BND	ACF 2 Channel, 80 dB gain, 10 dBm, DC Power
UHF 490-512 MHz, CLASS A	
CS33-43D-ANA	ACF 1 Channel, 80 dB gain, 13 dBm, AC Power
CS33-43D-AND	ACF 1 Channel, 80 dB gain, 13 dBm, DC Power
CS33-43D-BNA	ACF 2 Channel, 80 dB gain, 10 dBm, AC Power
CS33-43D-BND	ACF 2 Channel, 80 dB gain, 10 dBm, DC Power

