



# Class A VHF (137-174 MHz) Public Safety Signal Boosters

## General Information

Westell's digital Class A Signal Boosters supports VHF Spectrum for improving the quality of critical communications for first responders, and private mobile users.

Westell's Class A Signal Boosters supports 32 channels (uplink and downlink), near/far mitigation, an integrated spectrum analyzer, and is compliant with NFPA code. Our innovative TX bypass solution allows for Simplex operation over a single antenna system.

### Frequency Ranges

- 136-174 MHz

### Product Highlights

- Digital Class A
- Channel Selective
- 24 dBm (1/4 Watt)
- Supports up to 32 Channels (Uplink and Downlink)
- NFPA 1221 & 72 (2016) 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



CS33-14A-2NA - Pictured

### Electrical Specifications

Downlink Output Power	24 dBm (1/4 Watt)
Uplink Output Power	24 dBm (1/4 Watt)
Channels Supported	Up to 32 Uplink and Downlink
Gain	80 dB
Gain Adjustment Range	20dB plus 40dB individually per filter
Passband	Channel Selective (90 KHz, 60 KHz, 45 KHz, 30 KHz, 20 KHz, and 15 KHz)
IMD	<-13 dBm
Noise Figure	< 9.0 dB Max @ max gain
Delay	90 KHz, 15µs 60 KHz, 19µs 45 KHz, 24µs 30 KHz, 32µs 20 KHz, 45µs 15 KHz, 55µs
Input Power (w/o Damage)	0 dBm Uplink (Max) -20 dBm Downlink (Max)
Commercial Power Requirements	AC (110/220 VAC) or DC (+24VDC to -48VDC)
Power Consumption	110W typ, 120W max



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## Mechanical Specifications

Dimensions (HxWxD) , Chassis B Dimensions (HxWxD) , Chassis C	20.2 x 18.2 x 9 inches 30 x 24 x 12 inches
Weight, Chassis B Weight, Chassis C	55 lbs. 125 lbs.
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 +50° C
Mounting	Wall, Rack or Pole mounting



Chassis B



Chassis C

## Ordering Information

Frequency Range MHz	Westell Part Number	Description	Chassis
137-164	CS33-14A-2NA	Class A, 2MHz BW - 2MHz BW 3MHz GB, 80 dB gain, 1/4 W, AC Power	B
	CS33-14A-2ND	Class A, 2MHz BW - 2MHz BW 3MHz GB, 1/4 W, DC Power	B
	CS33-14A-0NA	Class A, No Duplexer*, 80 dB gain, 1/4 W, 4 Port AC Power	B
	CS33-14A-0ND	Class A, No Duplexer*, 80 dB gain, 1/4 W, 4 Port DC Power	B
	CS33-14A-3NA	Class A, 3.5 MHz BW - 1.6 MHz GB, 80 dB gain, 1/4 W, AC Power	C
	CS33-14A-3ND	Class A, 3.5 MHz BW - 1.6 MHz GB, 80 dB gain, 1/4 W, DC Power	C
	CS33-14A-SNA	TX bypass for Simplex Radio systems, 80 dB gain, 1/4 W, AC Power	B
	CS33-14A-SND	TX bypass for Simplex Radio systems, 80 dB gain, 1/4 W, DC Power	B
155-174	CS33-14B-2NA	Class A, 2MHz BW - 2MHz BW 3MHz GB, /4 W, AC Power	B
	CS33-14B-2ND	Class A, 2MHz BW - 2MHz BW 3MHz GB, 1/4 W, DC Power	B
	CS33-14B-0NA	Class A, No Duplexer*, 80 dB gain, 1/4 W, 4 Port AC Power	B
	CS33-14B-0ND	Class A, No Duplexer*, 80 dB gain, 1/4 W, 4 Port DC Power	B
	CS33-14B-3NA	Class A, 3.5 MHz BW - 1.6 MHz GB, 80 dB gain, 1/4 W, AC Power	C
	CS33-14B-3ND	Class A, 3.5 MHz BW - 1.6 MHz GB, 80 dB gain, 1/4 W, DC Power	C
	CS33-14B-SNA	TX bypass for Simplex Radio systems, 80 dB gain, 1/4 W, AC Power	B
	CS33-14B-SND	TX bypass for Simplex Radio systems, 80 dB gain, 1/4 W, DC Power	B

\* Please, contact Westell for Special Order Filter Configurations

