California Amplifier

AirStream™ MDS and WCS Standalone Transceivers

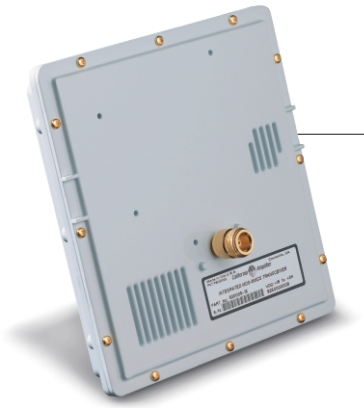
California Amplifier's AirStream transceivers have been designed for two-way wireless applications such as high-speed Internet access, private data networking and telephony. These transceivers are based on over a decade of experience in providing cost effective solutions to MMDS markets.

The overall system involves transmitting digital video, voice and data from a hub station to multiple customers ("downstream" data) and transmitting voice and data from the customer premises back to the hub ("upstream" data)

The AirStream transceiver, in conjunction with an MMDS antenna and broadband wireless modem or standard cable modem, represents the overall customer premises solution to provide high-speed data connectivity to the customer. AirStream transceivers possess a strong set of performance features, honed by years of two-way field-testing. The transceiver consists of an integrated upconverter, power amplifier and downconverter. Its high stability oscillator and dual conversion upconverter was designed to work with standard IF frequency plans.

AirStream transceivers provide wireless operators with a cost effective, field proven solution to deploy high-speed data and telephony services using MMDS, MDS and WCS spectrum

- *Single RF and IF connectors eliminate the need for external splitters and combiners*
- *+25 dBm P1dB output power accommodates large cell coverage*
- *Power amplifier turns off, when not in use, to minimize network interference due to broadband noise transmission*
- *Temperature compensated oscillator provides highly stable frequency conversions*
- *Heavy filtering minimizes interference from PCS, WCS and radar signals*
- *Compact unit simplifies outdoor installation next to antenna*



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ISO 9001

Certificate #A3505

	520004-1 (MDS-MMDS)	520006-1 (Lower WCS-MMDS)
Downconverter:		
RF Input Frequency	2500 - 2686 MHz	2500 - 2686 MHz
IF Output Frequency	222 - 408 MHz	222 - 408 MHz
Gain	32 ± 6 dB	32 ± 6 dB
Noise Figure	4.0 dB Typ	3.5 dB Typ; 4.5 dB Max
In-band Spurious	-80 dBm Max	-80 dBm Max
Image Rejection (PCS Band inclusive)	85 dB	90 dB
WCS Rejection (Min)	100 dB	100 dB
Out of Band Rejection (Min)	40 dB at 2750 MHz 40 dB at 2450 MHz	15 dB at 2705 MHz 65 dB at 2750 MHz 55 dB at 2450 MHz
Upconverter:		
IF Input Frequency	14.375 - 26.375 MHz	28.062 - 40.062 MHz
RF Output Frequency	2150 - 2162 MHz	2305 - 2317 MHz
Gain	22 ± 5 dB	28 ± 5 dB
Output 1-dB Compression point	+25 dBm Min	+24 dBm Min
Power blanking input threshold	-50 dBm Min	-50 dBm Min
General:		
Tx LO Frequency Stability	± 10 KHz over temperature	± 12 KHz over temperature
Rx Phase Noise	-65 dBc/Hz @ 100 Hz -85 dBc/Hz @ 1 KHz -93 dBc/Hz @ 10 KHz -98 dBc/Hz @ 100 KHz	-65 dBc/Hz @ 100 Hz -85 dBc/Hz @ 1 KHz -93 dBc/Hz @ 10 KHz -98 dBc/Hz @ 100 KHz
IF Connector (Rx out / Tx In)	F-Type, 75 Ohm	F-Type, 75 Ohm
RF Connector (Rx In / Tx out)	N-Type, 50 Ohm	N-Type, 50 Ohm
DC Supply	16 to 24 volts DC @ 550 mA	16 to 24 volts DC @ 550 mA
Operating Temperature	-40˚C to +70˚C	-40˚C to +70˚C
Finish	Chem.. Film, MIL-C-5541	Chem. Film, MIL-C-5541
Physical Size	6.7 x 6.7 x 2.7 in.	6.7 x 6.7 x 2.7 in.
Weight	36 oz.	36 oz.

Additional frequency plans available - please contact company for more information

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