

APPLICATION		REVISIONS			
NEXT ASSY	USED ON 520006-2	REV A	DESCRIPTION RELEASED / ECO#58742	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: <u>FRACTIONS</u> <u>DECIMALS</u> <u>ANGLES</u> $\pm 1/32$.XX $\pm .01$ $\pm 0^{\circ}30'$.XXX $\pm .005$	NEXT ASSY	MODEL	C+A			
		520006-2				
MATERIAL:	DRAWN: A. ANGELES	DATE: 12/8/99	TITLE WCS-MMDS INTEGRATED PLANAR TRANSCEIVER			
	CHECK:	DATE:				
	ENGR: J. PONTI	DATE: 4/3/00				
	OTHER:	DATE:				
FINISH:			SIZE A	CAGE CODE 6T925	DWG NO. M520006-2	REV. A
	DO NOT SCALE DRAWING	ELEC. FILE: M520006-2A.doc	SIZE	WEIGHT	SHEET 1 OF 3	

C+A

WCS-MMDS INTEGRATED PLANAR TRANSCEIVER

PART NUMBER

520006-2

Downconverter Specifications: (Rx)

RF Input Frequency	2500 - 2686 MHz
IF Output Frequency	222 - 408 MHz
Gain	32 ± 6 dB (-30°C to +60°C)
Gain Flatness (Downconverter).....	3.5 dB typ., 4.5 dB Max. (-30°C to +60°C)
Integrated Gain Flatness	5.5 dB Max. (-30°C to +60°C)
Noise Figure	4.0 dB typ.; 5.5 dB Max at upper end of band
IMD (Two tone test at -1 dBm each at the output).....	-50 dBc Max.
Output 3rd Order Intercept.....	24 dBm Min.
Image Rejection (PCS Band inclusive)	85 dB Min. (60 dB is pre-LNA)
WCS Rejection	90 dB Min. (35 dB is pre-LNA)
Out-of-Band Rejection	15 dB at 2705 MHz Min.
.....	60 dB at 2750 MHz Min.
.....	50 dB at 2450 MHz Min.
IF Rejection	-85 dBc Max.
In-Band Spurious	-70 dBm Max.
LO Frequency	2278 MHz ± 50 KHz (-30°C to +60°C)
Phase Noise	-65 dBc/Hz @ 100 Hz
.....	-85 dBc/Hz @ 1 KHz
.....	-93 dBc/Hz @ 10 KHz
.....	-100 dBc/Hz @100 KHz

Upconverter Specifications: (Tx)

IF Input Frequency	28.062 - 40.062 MHz
RF Output Frequency	2305 - 2317 MHz
Gain	28 ± 5 dB (-30°C to +60°C)
Gain Flatness (Upconverter Only)	3 dB Max. (-30°C to +60°C)
Integrated Gain Flatness	4 dB Max. (-30°C to +60°C)
Output 1-dB Compression Point	+24 dBm Min.
Output Transmit Noise	-105 dBm/Hz Max.
Output Spurious/Harmonics (+21 dBm Tx Out).....	-50 dBm for RF >2320 MHz
Output Spurious/Harmonics (+21 dBm Tx Out).....	-40 dBm for RF <2300 MHz
Output Power Blanking Threshold.....	-50 dBm Min. @ IF Input
LO Frequency	2143 MHz ± 10 KHz (-30°C to +60°C)
Phase Noise	-60 dBc/Hz @ 100 Hz
.....	-80 dBc/Hz @ 1 KHz
.....	-87 dBc/Hz @ 10 KHz
.....	-93 dBc/Hz @ 100 KHz

General Specifications:

IF Connector (Rx Out / Tx In).....	F-Type, 75 Ohm
Tx/Rx IF Return Loss	Tx In: -10 dB; Rx Out: -6 dB Max.
DC Supply	16 to 24 Volts DC @ 550 mA

Above specifications subject to change without notice.

World Headquarters: 460 Calle San Pablo, Camarillo, CA, USA 93012 Tel: 805/987-9000 Fax: 805/987-8359

Latin America Sales: California Amplifier do Brazil, Tel & Fax: 55/12-341-2264

Europe, Middle East & Africa Sales: Cal Amp sarl Paris, Tel: 33/1 49 19 89 20 Fax: 33/1 48 64 52 55

Asia and Pacific Sales: California Amplifier Thailand, Tel: 66-2-870-8333 Fax: 66-2-870-8334

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Antenna Specifications:

Gain 17 dBi \pm 1 dB
3 dB Beamwidth 18.5° \pm 1.5°
1st Side Lobe (relative to main beam) 17 dB Max., 20 dB Typ.
Cross Polarization -30 dB Max.
Pattern Interference Rejection (>60°) 20 dB Min.

Mechanical Specifications:

Dimensions 13.5 x 13.5 x 2.6 in.
Weight 6.0 lbs. (with mount)
Environmental:
Moisture Environmentally sealed
Operating Temperature -30°C to +60°C
Wind Operational to 50 mph

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