

APPLICATION		REVISIONS			
NEXT ASSY	USED ON	REV	DESCRIPTION	DATE	APPROVED
	520006-1	A	RELEASED/ECO#58742		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: <u>FRACTIONS</u> <u>DECIMALS</u> <u>ANGLES</u> ±1/32 .XX ±.01 ±0°30' .XXX ±.005	NEXT ASSY	MODEL	<h1>C+A</h1>			
		520006-1				
MATERIAL:	DRAWN: A. ANGELES	DATE: 1/12/00	TITLE WCS-MMDS INTEGRATED PLANAR TRANSCEIVER			
	CHECK:	DATE:				
	ENGR: J. PONTI	DATE: 3/20/00				
	OTHER:	DATE:				
FINISH:			SIZE	CAGE CODE	DWG NO. M520006-1	REV.
			A	6T925		A
	ELEC. FILE: M520006-1A.doc		WEIGHT	SHEET 1 OF 2		

DO NOT SCALE DRAWING

C+A

WCS-MMDS INTEGRATED TRANSCEIVER

PART NUMBER

520006-1

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	3.5 dB typ., 4.5 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.....	3 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
TxRx RF Return Loss	- 7 dB Max.
Finish.....	Chemfilm MIL-C-5541, Class 3 Yellow
Weight	36 oz. (1000 gram)
Size.....	6.7 x 6.7 x 2.7 in., (170 x 170 x 70 mm)

Above specifications subject to change without notice.

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SPEC FORM: M520006-1

REV: A

DATE: 3/00