

APPLICATION		REVISIONS			
NEXT ASSY SIZE	USED ON	REV	DESCRIPTION	DATE	APPROVED
		A	RELEASED/ECO#5898	0/21/00	S. NIMER
		B	ADD LO FREQUENCY/ECO#59187	2/12/01	S. ALEMAN

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: FRACTIONS DECIMALS ANGLES ±1/32 .XX ±.01 ±0°30' .XXX ±.005	NEXT ASSY	MODEL	C+A		
		520010-2			
MATERIAL:	DRAWN: A. ANGELES	DATE: 2/12/01	TITLE SPEC SHEET, MMDS-MMDS INTEGRATED PLANAR TRANSCEIVER, UPSTREAM		
	CHECK:	DATE:			
	ENGR:	DATE:			
	OTHER:	DATE:			
FINISH:			CAGE CODE	DWG No	REV.
	ELEC. FILE: M520010-2B.doc		A N/A SCALE	61925	M520010-2 SHEET 1 OF 3

C+A

MMDS-MMDS INTEGRATED PLANAR TRANSCEIVER

PART NUMBER

520010-2

Downconverter Specifications: (Rx)

RF Input Frequency	2500 - 2602 MHz
IF Output Frequency	222 – 324 MHz
Local Oscillator Stability	± 50 KHz over temp, ± 75 KHz over 5 Years
Gain	32 ± 5 dB (-30° to +60° C)
Gain Flatness	3.5 dB Typical; 4.5 dB Max.
Noise Figure	4 dB Typical.; 5 dB Max. (25° C)
Output 3rd Order Intercept	24 dBm
PCS Rejection	95 dB (60 dB pre-LNA)
WCS Rejection	80 dB (50 dB pre-LNA)
Out-of-Band Rejection	50 dB at 2750 MHz
.....	50 dB at 2450 MHz

Upconverter Specifications: (Tx)

IF Input Frequency	21.75 – 63.75 MHz
RF Output Frequency	2644 – 2686 MHz
Local Oscillator Frequency	2468 MHz; ±15 KHz over temp,
.....	(-30°C to +60°C)
Gain Set	22 ± 2 dB (25° C)
Gain Variation	±3 dB (-40° to +60° C)
Output IP3	+35 dBm (25° C)
P1dB	+25 dBm (25° C)
Output Transmit Noise (Tx ON)	-115 dBm/Hz
Output Spurious (at +22 dBm Tx output)	-50 dBc in-band; -60 dBc out-of-band
Output Power Blanking:	
Turn OFF Threshold Level.....	-52 ± 5 dBm @ IF Input
Turn OFF Time	4 mSec

General Specifications:

Phase Noise (both Rx and Tx).....	-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
Tx/Rx IF Return Loss	-7 dB Max.
DC Supply.....	16 to 24 Volts DC @ 750 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

SPEC FORM: M520010-2

REV: B

DATE: 2/01

C+A

MMDS-MMDS INTEGRATED PLANAR TRANSCEIVER

PART NUMBER

520010-2

Antenna Specifications:

Frequency Bandwidth..... 2500 - 2686 MHz
Gain..... 17 dBi $\pm$ 1 dB
3 dB Beam width..... 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 3.5 in.
Weight 7 lbs. (with mount)
Environmental:
Moisture Environmentally sealed
Operating Temperature -30°C to + 60°C
Wind..... Operational to 50 mph

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

SPEC FORM: M520010-2

REV: B

DATE: 2/01