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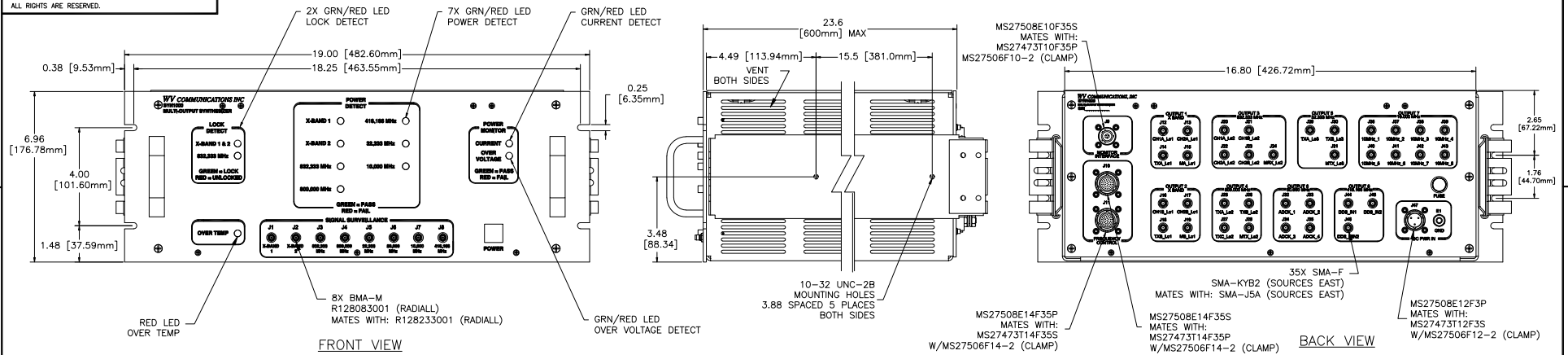
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	RELEASED	03/19/09	TT
	B	ADDED POWER SWITCH & FUSE	14JUL09	GG



Output 1/2 : (4 Ports)

Frequency range :	SYN1000- 7983.5-8463.5MHz in 1.0KHz Steps SYN1001-8663.5-9163.5MHz in 1.0KHz Steps
Frequency stability :	±1ppm Maximum
Impedance :	50 Ohm Nominal
Output power level :	+3dBm Nominal
Harmonics :	-30dBc Maximum
Spurious :	-60dBc Maximum
Frequency switching speed :	100µs Maximum
Port Isolation :	50dB Minimum
Frequency Control :	Differential line driver Parallel BCD
Monitoring :	TTL High for fail , Low for good ; Green LED light up when test good , Red LED light up when test fail
Lock indicator :	Green LED/TTL Low for Locked
Phase noise :	1KHz offset 90dBc/Hz 10KHz offset 90dBc/Hz 100KHz offset 100dBc/Hz 1MHz offset 115dBc/Hz

Output 3: (5 ports)

Output Frequency :	832.333MHz
Impedance :	50 Ohm Nominal
Output power level :	+3dBm Nominal
Harmonics :	-50dBc Maximum
Spurious :	-60dBc Maximum
Frequency stability :	±1ppm Maximum
Monitoring :	TTL High for fail , Low for good ; Green LED light up when test good , Red LED light up when test fail
Phase noise :	1KHz offset 105dBc/Hz 10KHz offset 110dBc/Hz 100KHz offset 115dBc/Hz 1MHz offset 120dBc/Hz

Output 4 : (4 Ports)

Frequency :	800.000MHz
Impedance :	50 Ohm Nominal
Output power level :	+3dBm Nominal
Harmonics :	-50dBc Maximum
Spurious :	-60dBc Maximum
Frequency stability :	±1ppm Maximum
Monitoring :	TTL High for fail , Low for good ; Green LED light up when test good , Red LED light up when test fail
Phase noise :	1KHz offset 105dBc/Hz 10KHz offset 110dBc/Hz 100KHz offset 115dBc/Hz 1MHz offset 120dBc/Hz

Output 5 (3 Ports)

Frequency :	32.333MHz
Impedance :	50 Ohm Nominal
Output power level :	+3dBm Nominal
Harmonics :	-50dBc Maximum
Spurious :	-60dBc Maximum
Frequency stability :	±1ppm Maximum
Monitoring :	TTL High for fail , Low for good ; Green LED light up when test good , Red LED light up when test fail
Phase noise :	1KHz offset 105dBc/Hz 10KHz offset 110dBc/Hz 100KHz offset 115dBc/Hz 1MHz offset 120dBc/Hz

Output 6 (4 Ports)

Frequency :	50.000MHz
Frequency stability :	±1ppm Maximum
Duty Cycle:	50±5%
Output power level :	TTL

Output 7 (8 Ports)

Frequency :	10.000MHz
Frequency Stability :	Per external reference
Impedance :	50 Ohm Nominal
Output power level :	6 ±3dBm

Output 8 (3 Ports)

Output Frequency :	416.166MHz (832.333MHz/2)
Impedance :	50 Ohm Nominal
Output power level :	0dBm
Harmonics :	- 50dBc Maximum
Spurious:	-60dBc Maximum
Frequency stability :	±1ppm Maximum
Monitoring :	TTL High for fail , Low for good ; Green LED light up when test good , Red LED light up when test fail

General characteristics

Reference frequency :	120MHz OCXO Internal
Frequency coherency :	All frequency outputs locked to reference
Operational Temperature :	-10 to+70°C
Monitoring signal:	Over current , Over temperature , Output signal level out of range
Heat sink method :	Chassis without electric fan.
DC Power :	Built In with DC +20~30V input

J10 FREQUENCY CONTROL

PIN No.	DESCRIPTION
1	1KHz1(+)
2	1KHz1(-)
3	1KHz2(+)
4	1KHz2(-)
5	1KHz4(+)
6	1KHz4(-)
7	1KHz8(+)
8	1KHz8(-)
9	10KHz1(+)
10	10KHz1(-)
11	10KHz2(+)
12	10KHz2(-)
13	10KHz4(+)
14	10KHz4(-)
15	10KHz8(+)
16	10KHz8(-)
17	100KHz1(+)
18	100KHz1(-)
19	100KHz2(+)
20	100KHz2(-)
21	100KHz4(+)
22	100KHz4(-)
23	100KHz8(+)
24	100KHz8(-)
25	1MHz1(+)
26	1MHz1(-)
27	1MHz2(+)
28	1MHz2(-)
29	1MHz4(+)
30	1MHz4(-)
31	1MHz8(+)
32	1MHz8(-)
33	GND
34	GND

J11 FREQUENCY CONTROL

PIN No.	DESCRIPTION
1	10MHz1(+)
2	10MHz1(-)
3	10MHz2(+)
4	10MHz2(-)
5	10MHz4(+)
6	10MHz4(-)
7	10MHz8(+)
8	10MHz8(-)
9	100MHz1(+)
10	100MHz1(-)
11	100MHz2(+)
12	100MHz2(-)
13	100MHz4(+)
14	100MHz4(-)
15	100MHz8(+)
16	100MHz8(-)
17	1GHz1(+)
18	1GHz1(-)
19	1GHz2(+)
20	1GHz2(-)
21	1GHz4(+)
22	1GHz4(-)
23	1GHz8(+)
24	1GHz8(-)
33	GND
34	GND

J9 MONITOR INTERFACE

PIN No.	DESCRIPTION
1	X-BAND LOCK DETECT
2	832.333 MHz LOCK DETECT
3	X-BAND 1 PWR DET
4	X-BAND 2 PWR DET
5	832.333 MHz PWR DET
6	800 MHz PWR DET
7	416.166 MHz PWR DET
8	32.333 MHz PWR DET
9	10 MHz PWR DET
10	CURRENT
11	OVER VOLTAGE
12	OVER TEMP
13	GND

J47 DC PWR IN

PIN No.	DESCRIPTION
A	+20~30V
B	RTN
C	SAFETY GND

900-50254-002	SYN1001
900-50254-001	SYN1000
NEXT ASSEMBLY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS ± 1/64 DECIMALS XX±.01 XXX±.005 ANGLES ±0°30' HOLES .XX±.005 .XXX±.003
MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX
MATERIAL
FINISH
DO NOT SCALE DRAWING

APPROVALS		DATE
DRAWN	TONY T.	03/19/09
CHECKED	TT	03/19/09
MECH ENGR	TT	03/19/09
ELEC ENGR	LB	03/19/09
PRODUCTION	AM	03/19/09
Q.A.	DB	03/19/09

WV Communications 1176 Tourmaline Dr. Newbury Park, CA

OUTLINE, SYNTHESIZER, MULTI-OUTPUT, SYN1000/1001

SIZE	CAGE CODE	DWG. NO.	REV
D	1GFQ7	050-50708	B

SCALE NONE SHEET 1 OF 1

DWG NO. 050-50708 REV B