SPECIFICATION

BS CONVERTER

NO.	ITEM	SPECIFICATION	NOTES
1−1	OUTPUT FREQUENCY RANGE	900.0 MHz−2150.0 MHz	
1−4.	NOMINAL INPUT IMPEDANCE	75 OHM	
1−5.	TUNING CIRCUIT	BUILT IN PLL	SP5055
1−6.	IF FREQUENCY	479.50 MHz CENTER	
1−8.			
1−9.			
1−10.	OPERATING VOLTAGE	+28V (+/−5%)(TUNING) +5V (+/−5%)(B+)	
1−11.	OPERATING TEMPERATURE	−10°C ~ +60°C	
1−12.	OPERATING HUMIDITY	LESS THAN 80% R.H. (AT 40°C)	
1−13.	STORAGE TEMPERATURE	−20°C ~ +70°C	
1−14.	STORAGE HUMIDITY	LESS THAN 95% R.H. (AT 40°C)	
2.	STANDARD TEST CONDITION	TEST FOR ELECTRICAL SPECIFICATION SHALL BE PREFORMED AT FOLLOWING CONDITION UNLESS OTHERWISE SPECIFIED.	
2−1.	AMBIENT CONDITION	TEMPERATURE 25°C+/−2°C HUMIDITY 65% +/−5% R.H. IF NO DOUBT ON TEST RESULTS, TEMPERATURE +5°C ~+30°C AND HUMIDITY 45% ~80% R.H. COULD BE APPLLIED.	
2−2.	MEASUREMENT TO START	30 MINUTES AFTER DC POWER SUPPLIED.	
2−3.	POWER SUPPLY		

TERMINAL	SUPPLY VOLTAGE
AGC B+	+5V(+/−)0.1V
B+ +5V	+5V(+/−)0.1V
TU +28V	+28V(+/−)0.1V
SDA	SPECIFIED TUNING
SCL	PULSE

3.	CURRENT CONSUMPTION					
		TERMINAL	MIN.	TYP.	MAX.	
		B+ +5V	130	150	170	mA
		AGC B+	0.5	1.0	3.0	mA
		TU +28V	0.5	1.0	3.0	mA

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SPECIFICATION

BS CONVERTER

NO.	ITEM	SPECIFICATION				NOTES
4.	ABSOLUTE MAXIMUM VOLTAGE	TERMINAL: AGC B+ / B+ / TU — MAX. SUPPLY VOLTAGE: DC +7V / DC +5.25V / DC +30V TERMINAL: SDA,SCL — MAX. SUPPLY VOLTAGE: 0V TO THE SAME VOLTAGE AS +5V TERMINAL				
5.	ELECTRICAL SPECIFICATION					
		CONDITION	MIN.	TYP.	MAX.	
5-1.	OUTPUT VSWR	900MHz-2150MHz		2.0	3.5	
5-4.	TUNING VOLTAGE CURVE	900 MHz 950 MHz 1150 MHz 1250 MHz 1450 MHz 1650 MHz 1850 MHz 2050 MHz 2150 MHz	1.0	1.2 1.8 4.3 5.4 7.3 9.5 12.3 16.3 19.5	 24.0	V
5-5.	LOCAL OSCILLATOR +B SHIFT	TUNING VOLTAGE SHIFT WITH +B +/- 5%		± 10		MHZ
5-6.	LOCAL OSCILLATOR TEMPERATURE DRIFT	TUNING VOLTAGE SHIFT WITH -10°C~+60°C		± 10		MHZ
5.7.	OUTPUT LEVEL			-27		dBm

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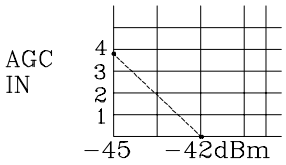
SPECIFICATION

BS CONVERTER

NO.	ITEM	SPECIFICATION	NOTES
7-1.	SIGNAL LEVEL OUT VOLTAGE	(V)  	47K Ω LOADED
7-2.	IIC BUS (1) SDA,SCL INPUT VOLTAGE	UNDER STANDARD TEST CONDITION	V

CONDITION	MIN.	TYP.	MAX.
HIGH VOLTAGE	3		5
LOW VOLTAGE	0		1.5

(2) ADDRESS

C0 P3=0V
C4 0.3~0.7Vcc
C6 0.8Vcc~5V

(3) SDA SCL INPUT IMPEDANCE

SDA/SCL ARE IN THE HIGH IMPEDANCE AND THERE SHOULD BE NO RELIABLITY PROBLEM WITH 5V CONTINUALLY ON THE SDA/SCL, IF POWER SUPPLY IS SWITCHED OFF.

(4) DATA FORMAT

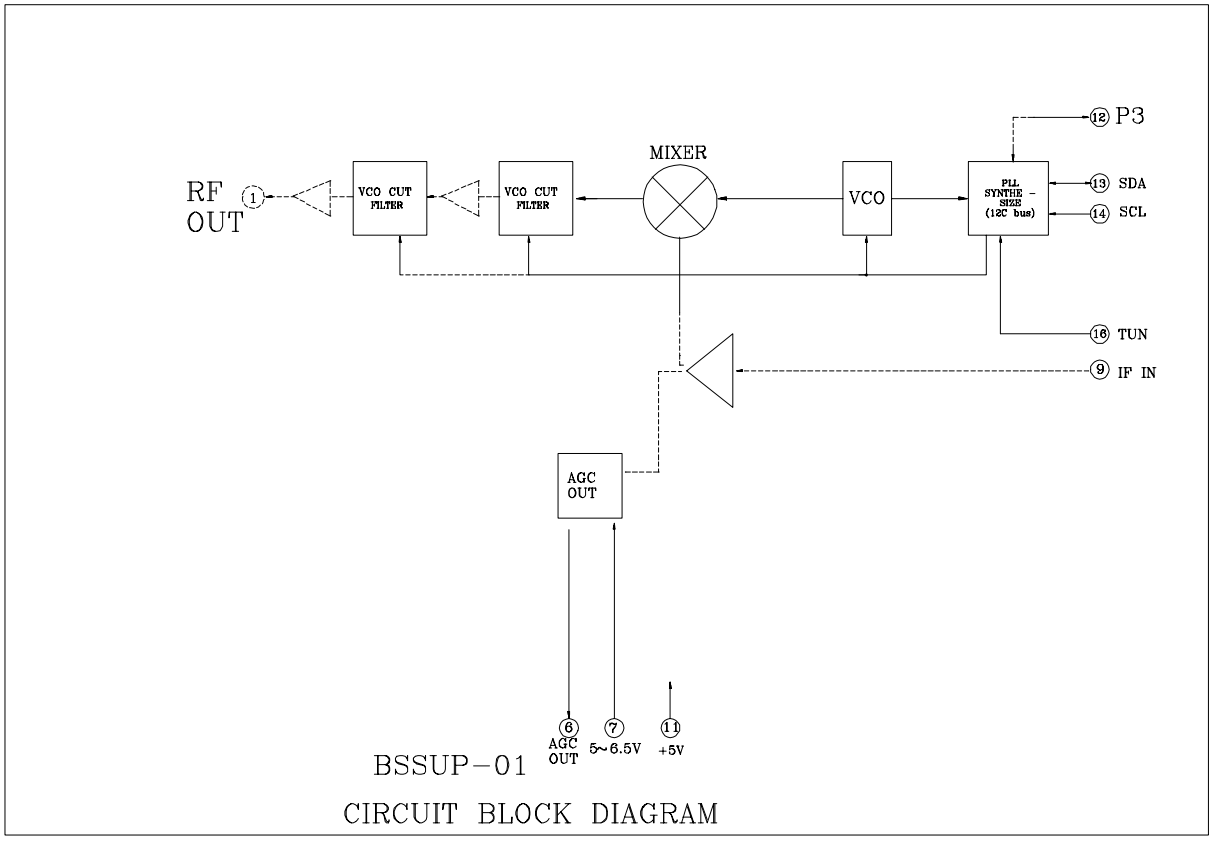
	MSB							LSB		
ADDRESS	1	1	0	0	0	MA1	MA0	0	A	BYTE1
PROGRAMMABLE DIVIDER	0	2^{14}	2^{13}	2^{12}	2^{11}	2^{10}	2^{9}	2^{8}	A	BYTE2
PROGRAMMABLE DIVIDER	2^{7}	2^{6}	2^{5}	2^{4}	2^{3}	2^{2}	2^{1}	2^{0}	A	BYTE3
CHARGE PUMP AND TEST BITS	1	CP	T1	T0	1	1	1	(0) OS	A	BYTE4
I/O PORT CONTROL BITS	P7	P6	P5	P4	P3	P2	P1	P0	A	BYTE5

TABLE 1 WRITE DATA FORMAT (MSB IS TRANSMITTED FIRST)

ADDRESS	1	1	0	0	0	MA1	MA0	1	A	BYTE1
STATUS BYTE	POR	FL	I2	I1	I0	A2	A1	A0	A	BYTE2

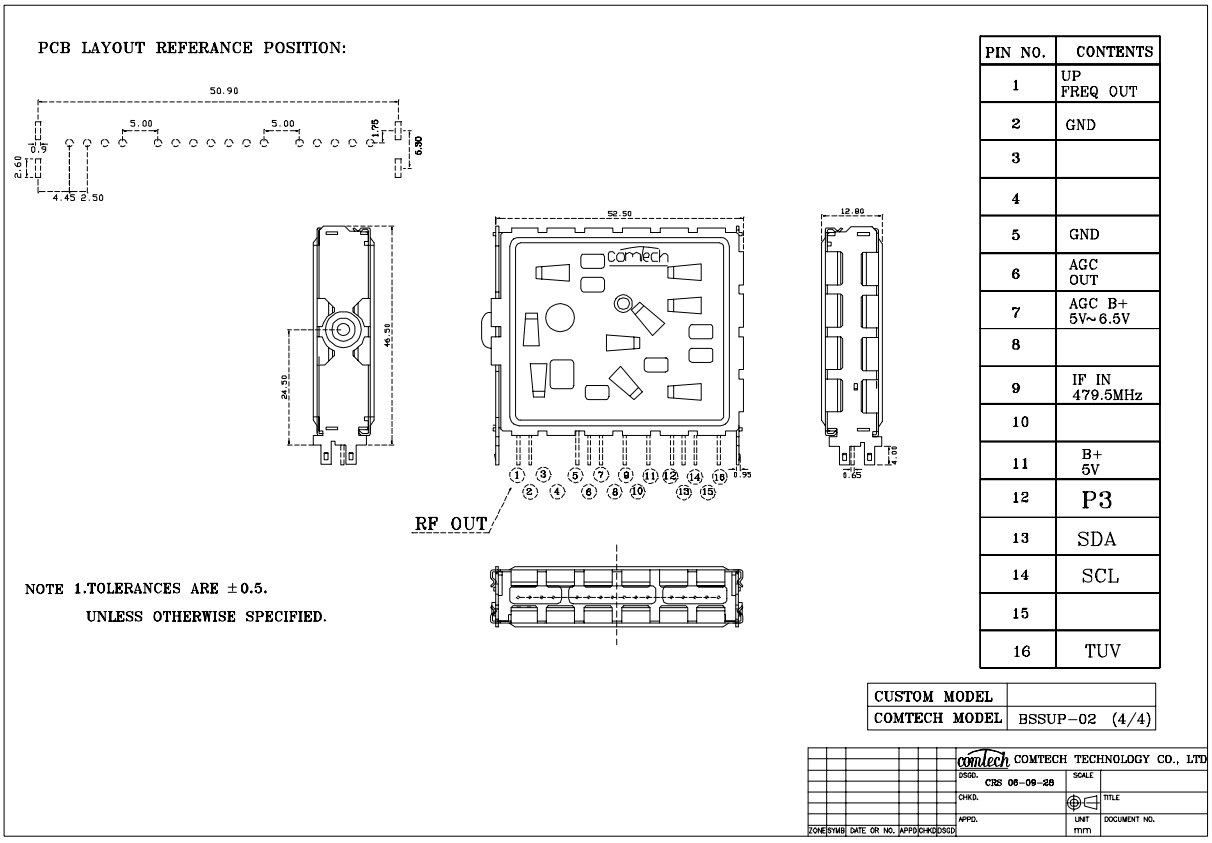
TABLE 2 READ DATA FORMAT

A:ACKNOWLEDGE BIT.
MA1,MA0:VOLTAGE ADDRESS BITS.
CP:CHARGE PUMP CURRENT SELECT.
T1:TEST MODE SELECTION.
T0:CHARGE PUMP DISABLE.
OS:VARACTOR DRIVE OUTPUT DISABLE SWITCH.
P7,P6,P5,P4,P3,P2,P1,P0:CONTROL OUTPUT STATES.
POR:POWER ON RESET INDICATOR
FL:PHASE LOCK DETECT FLAG.
I2,I1,I0:DIGITAL INFORMATION FROM PORTS P7,P5 AND P4.
A2,A1,A0:5 LEVEL ADC DATA FROM P6.



BSSUP-01

CIRCUIT BLOCK DIAGRAM



PIN NO.	CONTENTS
1	UP FREQ OUT
2	GND
3	
4	
5	GND
6	AGC OUT
7	AGC B+ 5V~6.5V
8	
9	IF IN 479.5MHz
10	
11	B+ 5V
12	P3
13	SDA
14	SCL
15	
16	TUV

CUSTOM MODEL	
COMTECH MODEL	BSSUP-02 (4/4)

COMTECH TECHNOLOGY CO., LTD

DSGD. CRS 06-09-28 | SCALE | TITLE | CHKD. | APPD. | UNIT mm | DOCUMENT NO.