



**SPECIFICATION**

Japanese Digital Terrestrial Bs/Cs Satellite Tuner

1.SCOPE

JDTS2-90532 series is RF unit for Japanese Integrated Services Digital Broadcasting Terrestrial and Satellite Receivers

2.GENERAL SPECIFICATIONS

2-1. Terrestrial

RECEIVING FREQUENCY RANGE	VHF HIGH	91~219MHz
	UHF	473~767MHz

2-2. Bs/cs satellite

RECEIVING FREQUENCY RANGE	BS-1~BS23	1049.48~1471.44MHz
	JD1~JD27	1068~1518MHz

2-3. SUPPLY VOLTAGE

:B1	3.3V	+/-2%	Ripple < 7mV
B2	1.2V	+/-2%	

2-4. CONSUMPTION CURRENT

:B1	3.3V	432	mA
B2	1.2V	145	mA

2-5. OPERATION AND STORAGE

TEMPERATURE 0~50°C

CONDITIONS FOR GUARANTEE

HUMIDITY 85% OR LESS

3.TEST CONDITIONS

3-1. TESTING AMBIENT CONDITIONS

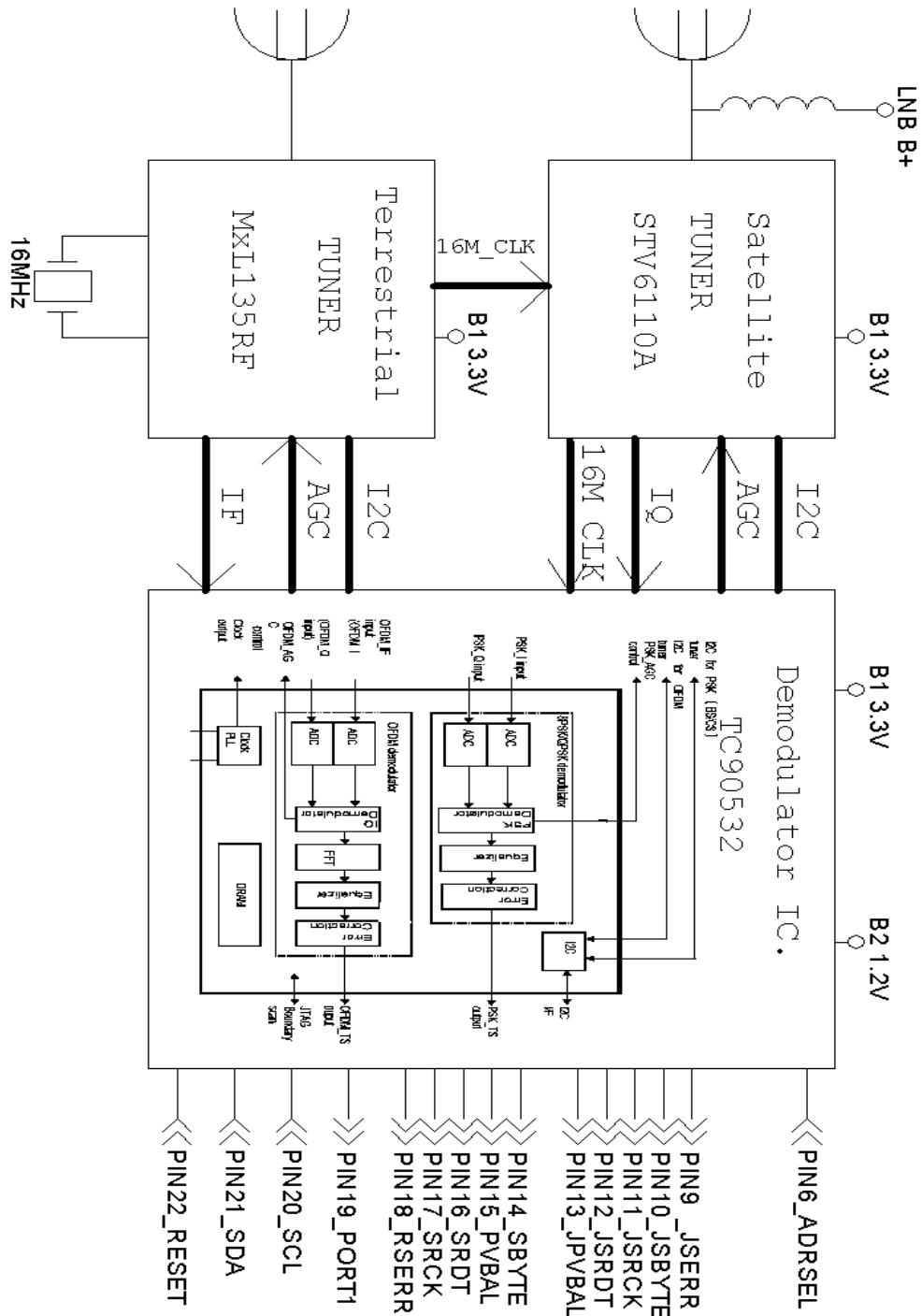
DEFINED AS TEMPERATURE OF 25+/-2°C AND HUMIDITY OF 65+/-5% RH.

NOTE : THAT TEMPERATURES OF 5~30°C AND HUMIDITY OF 45~85% MAY BE REGARDED AS STANDARD.

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Japanese Digital Terrestrial Bs/Cs SatelliteTuner

4.Block Diagram



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**5 I<sup>2</sup>C bus protocol**

**General**

The Philips I<sup>2</sup>C-bus committee has allocated the following call address to the TC90532

**TC90532 I<sup>2</sup>C address :OFDM**

A6	A5	A4	A3	A2	A1	A0	RW
0	0	1	0	ADRSEL	0	0	0:Write 1:Read

**TC90532 I<sup>2</sup>C address :PSK**

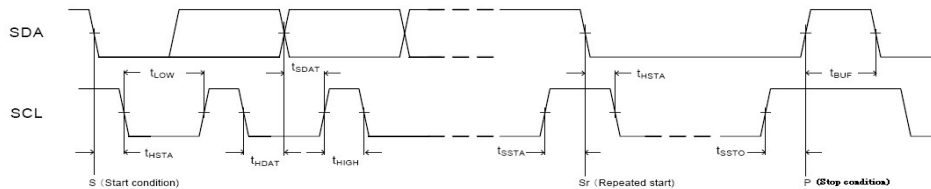
A6	A5	A4	A3	A2	A1	A0	RW
0	0	1	0	ADRSEL	0	1	0:Write 1:Read

**DC level on pin6 ADRSEL**

**0V~ 0.2B1 = Lo**

**0.8B1~ B1 = Hi**

The I<sup>2</sup>C interface of the TC90532 can operate on 400 kHz. The same applies to through write and read for tuners.



	Item	Symbol	Minimum	Typ.	Maximum	Unit
Bus	SCL clock frequency	fSCL	0	-	400	kHz
	Start condition: hold time	tHSTA	0.6	-	-	μs
	SCL clock "L" period	tLOW	1.3	-	-	μs
	SCL clock "H" period	tHIGH	0.6	-	-	μs
	Restart condition: setup time	tSSTA	0.6	-	-	μs
	SDA data input: hold time	tHDAT	0	-	-	μs
	SDA data input: setup time	tSDAT	0.1	-	-	μs
	Stop condition: setup time	tSSTO	0.6	-	-	μs
	Bus free time	tBUF	1.3	-	-	μs

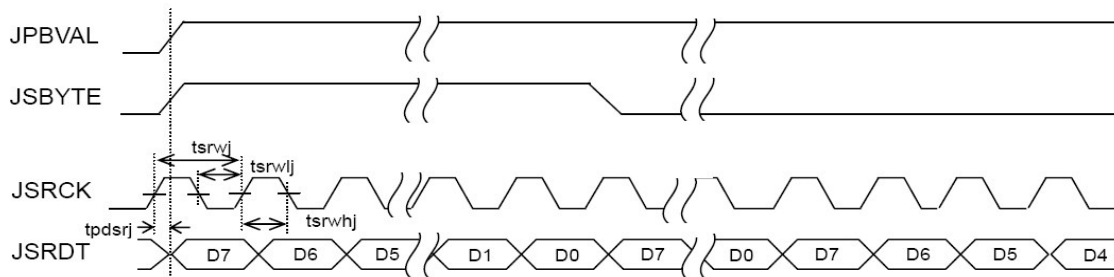
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6.0 Electrical Characteristics Control refer to TC90532 data sheet

NO.	ITEM	CNODITION	MIN.	TYP.	MAX.	NOTES.
6.1	C/N in AWGN ,RF=50dBm RS uncorrected error=0	OFDM: 64QAM R7/8		21.5		dB
		OFDM: 16QAM R1/2		10		dB
		8PSK:		9		dB
6.2	Sensitivity in AWGN RS uncorrected error=0	OFDM: 64QAM R7/8		-75		dBm
		OFDM: 16QAM R1/2		-80		dBm
		8PSK:		-70		dBm
6.3	Max Input Level	OFDM :64QAM R7/8		-25		dBm
		OFDM :16QAM R1/2		-25		dBm
		8PSK		-20		dBm
6.4	Digital Adjacent Channel Interference	OFDM:64QAM R7/8		28		dB

7.0 Electrical Characteristics (AC Characteristics)

7.1 TS Output Serial Interface for OFDM



7.2 TS Output Serial Interface for PSK

