

SPECIFICATION
DIGITAL TERRESTRIAL RECEIVER Revision:1.0

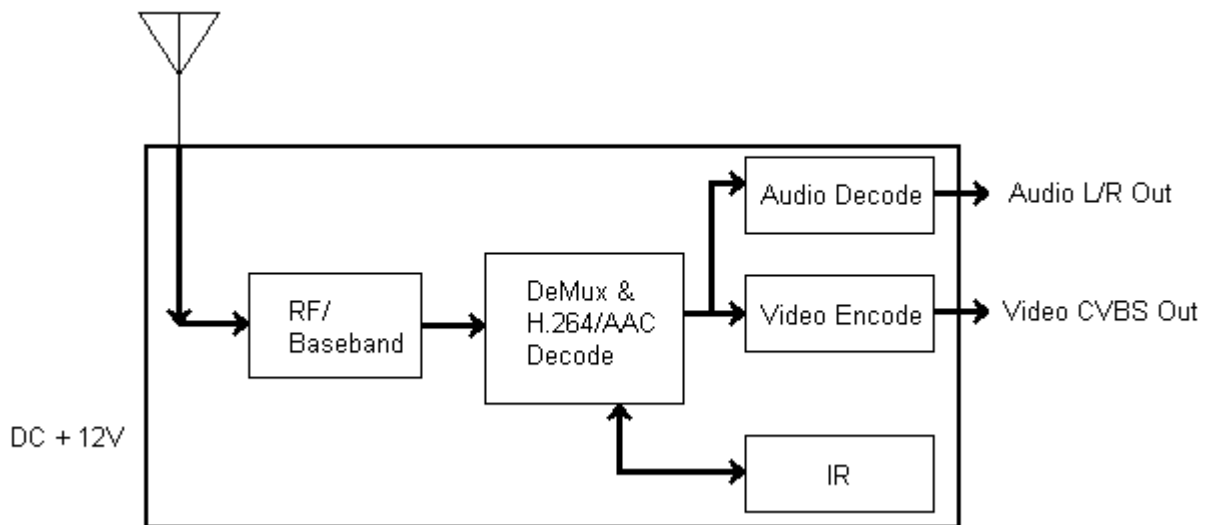
MAIN Feature

IST1-9000, is a total solution performing antenna-in-video-out reception for ISDB-T 1-Seg signals compliant with the ISDB-T 1-Seg specifications. It provides an easy and convenient way to upgrade existing multimedia electronics to attain ISDB-T reception capability. With its embedded RF tuner, high performance COFDM demodulator, and a hardware H.264 decoder, IST1 can receive ISDB-T signals over the air through antenna and generate versatile high quality video/audio outputs for display.

IST1-9000 features with high sensitivity. These advantages make IST1-9000 module an ideal subsystem for many portable consumer electronics such as in-car entertainment, car navigation, portable TV, portable DVD players, DVD player/recorder, etc.

IST1-9000 contains IR ports to facilitate communications requirements between module and host systems. Its 10-pin connector provides a simple and easy interface for integration with host systems. It is a simple, slim, and almost self-contained module. Apart from the power, I/O, A/V connectors,

System configuration





SPECIFICATION			
DIGITAL TERRESTRIAL RECEIVER			Revision:1.0
1. General Specification			
NO	ITEM	SPECIFICATION	NOTE
1-1	Support TV system	Demodulation 1SEG Reception Japanese Standard ARIB STD-B31	(NOTE1)
1-2	RF Input Connector	SMA Connector	
1-3	Input Frequency Range	UHF 473.143~803.143MHz(CH14~CH69)	
1-4	Input Signal Level	-95dBm ~ -5dBm	
1-5	Input Impedance	75 ohm	
1-6	RF tuning/OFDM DM. IC	NMI 320	
1-7	OFDM Spectrum	4K Carrier	
1-8	Modulation Modes	QPSK(1/2,2/3),16QAM(1/2)	
1-9	Guard Interval Modes	1/32, 1/16, 1/8, 1/4	
1-10	FEC Modes	1/2, 2/3, 3/4, 5/6, 7/8	
1-11	Mobility	Supports	
1-12	H.264 Decoder IC	CLM 9000	
1-13	VIDEO DECODING	H.264/MPEG-4 AVC Baseline Profile 1.2	
1-14	AUDIO DECODING	MPEG4 HE ACC	
1-15	Video Output	CVBS Video output CVBS (QVGA 320*240) Video Decoding Rate (Japan) Frame Rate 15 frames/Sec (Capable of 30frames/Sec) Video Decoding Rate (Brazil) Frame Rate 25 frames/Sec (Capable of 30frames/Sec)	
1-16	Audio Output	Stereo R/L	
1-17	Controls	OSD, Remote Ctrl	
1-18	Program viewing functions	Supports	
1-19	Channel information display	Supports	
1-20	Auto channel scan	Supports	
1-21	EPG	Supports	
1-22	Power Supply Voltage	12V +/- 5%	
1-23	Temperature	Operating Temperature:0 ~ 60°C Storage Temperature:-10°C ~ 70°C	
1-24	Weight	23.8g	



SPECIFICATION						
DIGITAL TERRESTRIAL RECEIVER						Revision:1.0
2. Standard Test Condition						
NO	ITEM	SPECIFICATION				
2-1	Ambient Condition	Temperature 25 +/-2 deg C Humidity 65+/-5% RH				
2-2	Supply Voltage	12V +/- 0.6 V DC				
2-3	Current consumption	12V, 180mA Typical				
3. Absolute Maximum Voltage						
NO	ITEM	SPECIFICATION				
3-1	Absolute maximum voltage	13V				
4. Note						
NO	EXPLANATION					
NOTE1	This specification recovered are obtained on the following condition: Mode:QPSK Guard Interval:1/4 FEC Mode:1/2					
5. Electrical Specification						
NO	ITEM	Specification				Condition
		Min	TYP	MAX	Unit	
5-1	Sensitivity		-95	-97	dBm	QPSK,GI=1/16,CR=1/2
5-2	Power Supply Voltage	11.4	12.0	12.6	V	
5-3	Ripple for Power Supply Voltage		30		mVp-p	12V Input
5-4	Current Consumption		180	200	mA	12V Input
5-5	Video output level		0.7		Vp-p	CVBS,Load=75 ohm
5-6	Audio output level	1.5	1.8	2.0	Vp-p	R/L,Load=100K ohm Frequency=1KHz

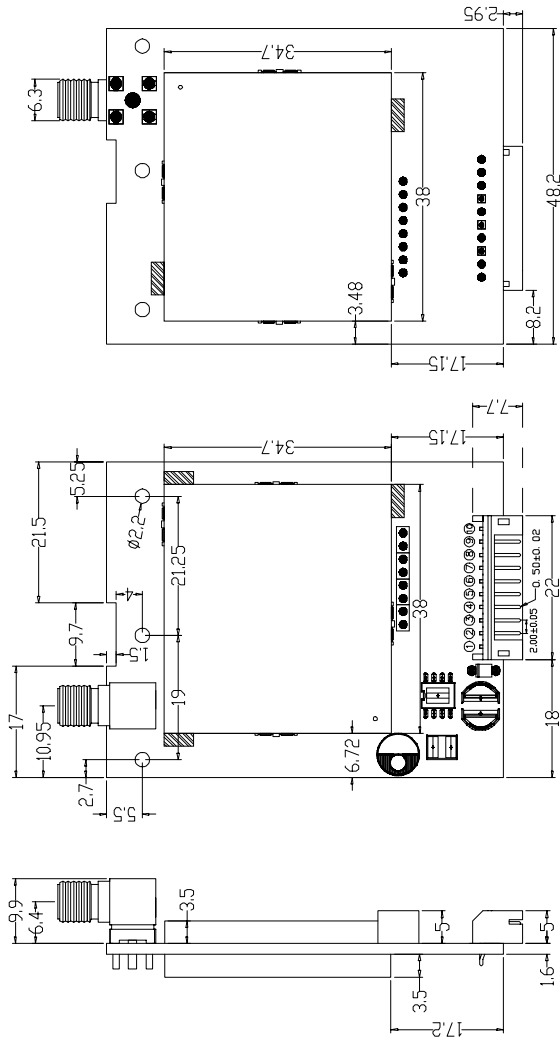


SPECIFICATION		
DIGITAL TERRESTRIAL RECEIVER		Revision:1.0
6. Remote Functions		
Code	Command	Description
0A	Search Up	Search the receivable channel on physical channel into the forward direction from current channel.
0C	Search Down	Search the receivable channel on physical channel into the backward direction from current channel.
0E	Mute	Toggle mute operation.
53	Sel	Enter key operation
10	Caption Select	Select Caption operation.
50	Channel List Display	Display the Channel list.
1C	Program Display	Display the Program contents.
44	Exit	Return from the display status of Program list, Program contents and Channel list.
1A	Clear	Return to the default setting.
18	Number key	1
19	Number key	2
0D	Number key	3
15	Number key	4
1B	Number key	5
1E	Number key	6
14	Number key	7
13	Number key	8
1D	Number key	9
16	Number key	0
52	VOL+	
51	VOL -	

SPECIFICATION
DIGITAL TERRESTRIAL RECEIVER

Revision:1.0

PIN NO.	CONTENTS
1	+12
2	IR_IN
3	GND
4	CVBS
5	GND
6	AOUT_R
7	GND
8	AOUT_L
9	NC
10	I/O



CUSTOM MODEL	
COMTECH MODEL	

DATE	BY	CHKD.	APPD.	DATE OR NO.	APPD.	CHKD.	DATE

SCALE	
TITLE	
UNIT	mm
DOCUMENT NO.	

NOTE 1. TOLERANCES ARE ± 0.5 .
UNLESS OTHERWISE SPECIFIED.