CatCast

HPS3848G

ISDB-T Modulator

Outline

HPS3848G ISDB-T modulator is developed to adapt Brazil, Argentina and other South American country's terrestrial digital television. The modulator's channel encoding and modulation mode is fully complying with the ARIB STD-B31 standard. This ISDB-T modulator supports two ASI and two IP input, single frequency network, and multi-frequency network. In order to improve the output performance of the transmitter, this ISDB-T modulator also simultaneously supports adaptive linear and nonlinear digital pre-distortion, layered transmission and three transmission modes. Furthermore, this device can be upgraded and controlled through network system, which can be widely used in ISDB-T digital broadcasting network's setting up and set-top box design's production and test.

Features

1. **Fully complying with ISDB-T (ARIB STD-B31) and ISDB-TB standard**
2. **Dual channel ASI input, 10MHz reference clock and 1PPS in**
3. **Dual IP input ports, GE ports, over UDP/RTP**
4. **Layered transmission with A, A+B, A+B+C hierarchy modes**

5. ISDB-T BTS input (with IIP packet), support single frequency and multi-frequency network

6. Three transmission modes: mode1(2k), mode2(4k), mode3(8k)

7. Supports adaptive linear digital pre-distortion (DPD)

8. Supports adaptive non-linear digital pre-distortion (DPD)

9. MER≥42db

10. RF output range: 50~999MHz with 1Hz step

11. Constant temperature crystal oscillating and excellent frequency stability (up to 0.1ppm)

12. WEB, Keyboard and LCD operation

Specifications

Input	2 ASI ports input, one for hot backup, BNC interface	
	Dual IP input ports over UDP/RTP, Unicast/Multicast, GE ports	
	1 channel 10MHz reference clock input	
	1 RF input for DPD -15.2dbm~+5dbm	
Modulation	Standard	ARIB STD-B31
	Mode	mode 1(2k), mode 2(4k), mode 3(8k)
	Constellation	DQPSK, QPSK, 16QAM, 64QAM
	External coding	RS (204，188)
	Internal coding	Convolution (1/2, 2/3, 3/4, 5/6, 7/8)
	Guard interval	1/4, 1/8, 1/16, 1/32
	Hierarchy mode	A、A+B、A+B+C
	Time domain interlacing	mode 1: 0, 4, 8, 16 mode 2: 0, 2, 4, 8 mode 3: 0, 1, 2, 4
	Bandwidth	6MHz
RF Out	Connector	N Type, 50ΩImpedance
	RF range	50~999Mhz，1Hz step
	Output level ATT	-20dbm~+5dbm，0.1db step
	MER	≥ 42db
Non-linear DPD	over 10db ACPR improvement (normally)	
linear DPD	over 10db non-flatness adjustment(normally)	

System	LCD display & keyboard operation, WEB, Chinese & English operation display	
	Supporting software upgrading through WEB	
General	Demission (W*L*H)	440mm×414mm×44.5mm
	Weight	4.9kg
	Temperature	0~45℃(operation),-20~80℃(storage)
	Power supply	AC 100V~240V,50/60Hz
	Consumption	25W

Principle Chart