

RM73A

TELEVISION INSTRUMENTS

SATELLITE DIGITAL MODULATOR



General

The RM73A is an orthogonal modulator designed for BS digital and CS digital broadcasting systems. Input an MPEG-2 transport stream signal of the video coded signal system, and it performs coding processing conforming to the BS digital broadcasting standards in the BS mode and DVB-S (Digital Video Broadcasting) standards in the CS mode, respectively, outputting a 140 MHz orthogonal modulation signal.

In combination use with this satellite digital modulator, ShibaSoku's TG73A MPEG-2 TS signal generator and RC931A synthesized frequency converter, you can configure a compact digital central signal source system.

Features

- 140 MHz orthogonal modulation signal is output as IF signal.
- Selection of BS or CS system mode.
- Conforming with the BS digital broadcasting standards.
- A wide range of bit-rate input conforming with the DVB-S standards can be input.
- Parallel and serial data inputs are standard.
- TS packet data length when a parallel or serial data is input can be set to:
 - BS mode: 188, 204 or 208 bytes
 - CS mode: 188 or 204 bytes
- Digital waveform shaping filter is employed.
- Digital waveform shaping filter allows to select root-cosine roll-off characteristics featuring 35% roll-off ratio or cosine roll-off characteristics.
- In the CS mode, error correction coding can be set to either 1/2, 2/3, 3/4, 5/6 or 7/8 coding ratio under the convoluted plus punctured conditions.
- Function of the FEC processing (energy dispersion, Lead Solomon code, interleave ... etc.) can be turned ON/OFF.
- Modulation system in BS mode automatically changes in accordance with TMCC information.
- I/Q inverted output can be set.
- I/Q base-band signal monitor output is standard.
- Coherent carrier output is standard as reference signal.
- GP-IB interface is standard.

Specifications

- Input signals
 - Serial input and clock input signals
 - Connector type BNC-R, 1 for each of data and clock
 - Input level LVDS (single end, positive polarity)
 - Input rate for BS mode
 - 52.17 Mbps (packet length : 188byte)
 - 56.61 Mbps (packet length : 204byte)
 - 57.72 Mbps (packet length : 208byte)
 - Input rate for CS mode
 - Coding rate 1/2, 2/3, 3/4, 5/6, 7/8, set in accordance with packet length (0.23 to 52.5 MHz)
 - Parallel input signals
 - Connector type D-SUB 25 pins (female)
 - Input level LVDS (conforming with DVB standards)
 - Input rate for BS mode
 - 6.52125 Mbps (packet length: 188byte)
 - 7.07625 Mbps (packet length: 204byte)
 - 7.12500 Mbps (packet length: 208byte)
 - Input rate for CS mode
 - Coding rate 1/2, 2/3, 3/4, 5/6, 7/8, set in accordance with packet length (28.75 to 6562.5kHz)
- Output signals
 - Modulation wave output
 - Connector type BNC-R, 50 Ω
 - Output level 0dBm \pm 1dB
 - Output frequency 140 MHz
 - Frequency stability \pm 5 ppm
 - Coherent carrier output
 - Connector type BNC-R, 50 Ω
 - Output level 0dBm \pm 1dB
 - Output frequency 140 MHz
 - Frequency stability \pm 5 ppm

Specifications

- Base-band monitoring output
 - Connector type BNC-R, 1 for each of I and Q signals
 - Output impedance 75 Ω
 - Output level 1 Vp-p (offset: 0V)
 - Frequency band ≤ 30 MHz
- I/Q clock output
 - Connector type BNC-R
 - Output level LVDS (single end, positive polarity)
 - Output frequency 0.25 to 30 MHz
 - Frequency stability ±20 ppm
- Reference clock output
 - Connector type BNC-R
 - Output level LVDS (single end, positive polarity)
 - Input rate for BS mode
 - 52.17 Mbps (packet length : 188byte)
 - 56.61 Mbps (packet length : 204byte)
 - 57.72 Mbps (packet length : 208byte)
 - Input rate for CS mode
 - Coding rate 1/2, 2/3, 3/4, 5/6, 7/8, set in accordance with packet length (0.23 to 52.5MHz)
 - Frequency stability ±20 ppm
- General specifications
 - Power supply AC 90 to 132, 198 to 250 V
 - Operating temperature range 10°C to 40°C
 - Relative humidity 25% to 90% RH (non-dewing)
 - Dimensions 99(H) x 426(W) x 460(D) mm
 - Weight Approx. 9.2 kg
 - Accessories

Power cable	x 1
3P-2P conversion connector	x 1
User's manual	x 1

Discontinued

