

PCM Telemetry Encoder

Model No: JC-SMTP-PCM11



Land



Air



Marine

Jisnu's PCM Encoder will perform signal acquisition, conditioning and frame formation of different types of telemetry information signals that need to be transmitted from the Article as per IRIG-106 standard.

PCM Encoder has 4 different types of information signals as input:

- Analog signals
- Discrete signals
- RS-422 interface signals
- ARINC-429 signals

Analog signals: Encoder will perform Signal conditioning, Sampling, Quantization and Analog to Digital conversion and converted digital information of analog signal will be placed into IRIG-106 standard frame.

Discrete Signals: Encoder will perform signal conditioning, sampling, grouping of discrete signals into words and placing those discrete words into frame.

RS-422 Interface Signals: PCM Encoder will read, decode the information from RS-422 interface and place that information into frame.

ARINC-429 Signals: PCM Encoder will read the information from ARINC-429 interface and place that information into frame.

PCM Encoder samples all input signals and formats them into frames according to the sampling rates of signals. The frame will be sent to the transmitter in serial form.

Output of PCM Encoder will be NRZ-L and Bi-Phase-L coded.



Applications

- Data Acquisition & Recording
- Telemetry of Onboard systems
- Telemetry of Subsystems

Features

- Acquisition of data from different kinds of external inputs
- Programmable sampling rates for different inputs as per IRIG 106 standards
- Programmable aggregate data rates

Technical Specifications

Functional	
Number of Analog channels	up to 96 channels
Number of Discrete channels	up to 96 channels
ARINC-429 BUS Interface	4 Nos
RS 422 Interface	3 Nos
Bit Rate	Upto 512 Kbps
Word Length	16 bits (MSB First)
Frame Length	up to 8192 bits
Format length	1-256 Frames
Frame Sync	7-33 bits
Format Sync	Binary Count 0 to 255 Frames ID
Outputs	a) NRZ-L Data and clock buffered TTL Output b) Biφ-L Output Data in TTL c) Biφ-L Output Data in RS-422 form. d) Pre modulation filter output for transmitter
Clock Output Level	Bit rate clock at TTL Level
Delayed Data Transmission	10 sec
Configuration	Through RS485 I/F
Input / Output Connectors	MIL Grade circular, D -type & SMA
Electrical	
Operating Voltage Range	18-36 V
Nominal Voltage	28 V
Rated Maximum Input Current	2 Amp
Mechanical	
Mechanical Outline (mm)	180 mm L X 130 mm W X 186 mm D
Enclosure Material	MIL Grade Aluminium-T6061(HE-30)
Weight (Kg)	≤ 4 kg
Chromatization	MIL-DTL-5541F Type II, Class 3 Chromatization
Environmental	
Temperature	
Operating	-30° C to +70° C
Storage	-30° C to +70° C
Humidity	90% RH Non-Condensing
Environmental Compliance	JSS-55555 / MIL 810D
EMI/EMC Compliance	MIL-STD-461E

