

QPSK Simulator

Model No: JC-SC-SM-25



Land



Air



Marine

The Multi-function Simulator with BER is designed to meet the Multi-mission Data Reception requirements of the Satellite Ground Stations. The Multi-function Simulator with BER is used to generate QPSK Modulated IF signal as its output and also to test the BER of the received data for data rates upto 160 Mbps (I or Q). The Simulator employs latest digital circuitry for different data rate generation to suit different mission data requirements upto 320 Mbps. This dual channel unit has all the necessary circuitry for generation of data rates from 10 Mbps to 320 Mbps internally and through external TPG.

Applications

- Satellite Data simulation for different data rates and frequency
- Local loop check of complete earth station for data validation

Features

- IF configurable according to data rates
- Programmable for 4 different missions
- Reliability and Maintainability in critical applications



Technical Specifications

Functional	
Carrier Frequency	720 MHz (IF Configurable Depending on Data Rates)
Type of Modulation	QPSK
Data Rate	10 to 320 Mbps Tunable with 100 Hz Step
Code Length	$2^{15}-1$ & $2^{23}-1$ (Selectable)
Input Source	1. External TPG: Serial Data & Clock or Parallel Data 2. Internal PRBS
Input Data	ECL single ended/ LVDS
Input Data Format	Selectable from NRZ-L (ECL un-terminated & LVDS)
Encoding	Algorithms for 4 Different Missions
Outputs	2 Independent Channels
Output Level	+7dBm to -23 dBm for each channel
BER Reader	Built-in Facility
BER Inputs	Data & Clock ECU Un-terminated
Input/Output Connectors	BNC (F)
Remote Interface	Ethernet
Remote Control & Monitoring	Remote programming through TCP/IP
Electrical	
Power	230V AC, 50 Hz, Single Phase
Mechanical	
Mounting	19-inch 3U Rack mountable
Size	485 L X 520 D X 132 H in mm
Weight	<8 Kgs
Environmental	
Temperature - Operating	0° C to +50° C
Temperature - Storage	-10° C to +60° C
Humidity	90% RH Non-Condensing

