

Description

The HTSS is a quad diversity Troposcatter channel simulator which interfaces with your radio equipment at 70MHz IF. The complete digital implementation provides high accuracy and exact repeatability. An integrated AWGN noise source coupled with an internal digital power meter supports accurate setting of SNR and Eb/No.

The HTSS uses the latest in Digital Signal Processing (DSP) technologies for a flexible, cost effective platform for radio channel simulation of Troposcatter communications.

Specifications

System

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|-----------------------|--|
| Quad Diversity | 1 input channel, 4 output channels |
| Channel Model | 16-taps / channel (64 total taps), 100ns tap spacing, Rayleigh Fading |
| System Bandwidth | 28 MHz (IF), <i>higher bandwidths available</i> |
| Passband Ripple | ± 0.1 dB maximum |
| System Gain | 0 dB ± 2.0 dB |
| Operating Temperature | +10° to +40° C |
| Supply Voltage | 120 – 220 VA, 50/60 Hz, auto-ranging |

Noise Source

| | |
|---------------------|--------------------------|
| Implementation | AWGN, Random PN Sequence |
| Crest Factor | 16.7 dB |
| Noise Power Density | -68 dBm/Hz maximum |

Input (x 1)

| | |
|--------------------|----------------------------|
| Input Connector | BNC |
| Input IF frequency | 70 MHz |
| Input VSWR | 1.2:1 maximum into 50 ohms |

Outputs (x 4)

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|---------------------|----------------------------|
| Output Connectors | BNC |
| Output IF frequency | 70 MHz |
| Output VSWR | 1.2:1 maximum into 50 ohms |

Control

| | |
|-----------|-------------------|
| Interface | Ethernet |
| Software | Windows based GUI |

Optional BERTS (Bit-Error-Rate Test Set)

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|--------------|--|
| Data Rate | User Customized |
| Interface(s) | User Customized |
| Measurements | Automatic BER waterfall-curve generation |