

SPACELINK SYSTEM

WIDEBAND AND MULTI-CHANNEL PAYLOAD AND SATELLITE LINK EMULATOR

- 1,6 GHz wide band
- Channel and payload testing
- Station RF impairments emulation
- IMUX, OMUX and amplifier emulation
- Independent uplink and downlink emulation
- Interferers and jammers emulation



ISO9001/EN9100/AS9100/JISQ9100

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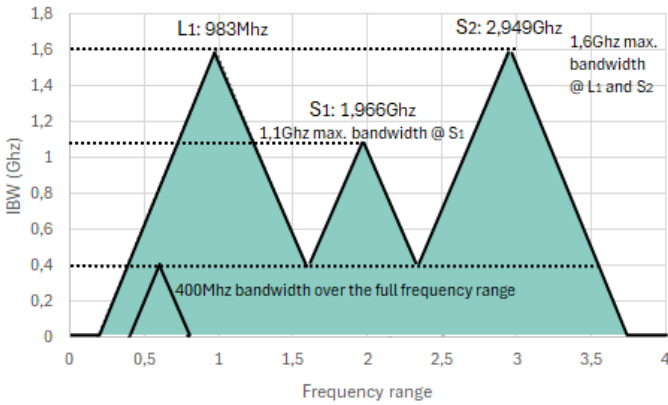
PRELIMINARY

FUNCTIONS

- Doppler effect
- Propagation delay
- Fading and scintillation
- Additive Gaussian White Noise
- Additive wide band QPSK jammers
- Phase noise (ground & payload)
- RF filters (sat. payload IMUX & OMUX)
- Amplifier Nonlinearity (sat. payload)
- Automatic Level Control (sat. payload)

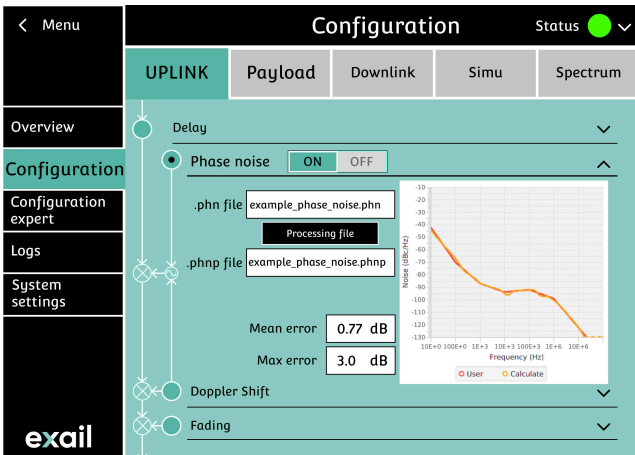
IF SIGNALS

- iXion 1
- Bandwidth: up to 1,6 GHz @ L1 and S2 band up to 1,1 GHz @ S1 band
 - Freq. Range: L1 or S1 or S2 Band
- iXion 2
- Bandwidth: up to 1,6 GHz and 400MHz over the full freq. range
 - Freq. Range: L, S Band - 0,2 to 3.8 GHz



REMOTE CONTROL

- Interface: Ethernet
- Protocol: TCP/IP
- Mnemonics: SCPI format
- Real-time data playback rate: 100 Hz
- Data interpolation rate: 10 kHz



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PROPAGATION EMULATOR

- Level fading
 - +5 to -40 dB
 - (0.1 dB step)
- Scintillation fading
 - 0 to -15 dB for each downlink & uplink
- Propagation Delay
 - 20 μs to 295 ms (1 ns step) continuously variable
- Delay slope
 - Up to ± 50 000 m/s (0.001 m/s step), guaranteed phase continuity
- Freq. Doppler shift
 - Up to ±2 MHz (1 MHz step)

RF AND PAYLOAD EMULATOR

- ALC mode: 1st order loop/off
- Non linearity: AM/AM and AM/PM over more than 80dB dynamic
- Phase noise: custom up to 70 points from 10Hz to 10MHz
- Independant IMUX & OMUX filter emulation

INTERFERERS AND JAMMERS EMULATOR

- AWGN generator: Chaotic uniform generator with Gaussian transform (up to 5 Ω)
- AWGN bandwidth: more than 1,6 GHz
- AWGN flatness: <0.2 dB
- Modulated carrier type: QPSK / CW
- Modulated carrier number: 4

ENVIRONMENTAL CONDITIONS

OPERATING

- Temperature: 10 °C to 40 °C
- Humidity: Up to 95% at 30 °C

NON OPERATING

- Temperature: -20 °C to 55 °C
- Humidity: Up to 95% at 30 °C

POWER SUPPLY

- Voltage: 230 V ±10% / 47 to 63 Hz
- Power: ≤ 600 VA

PHYSICAL CHARACTERISTICS

- Drawer: 19 inches x 2 U x 465 mm (excl. connectors and handles)
- Weight: ≤ 10 kg

SPACELINK SYSTEM MODELS

example: iXion1 L1 - 1

Model	Frequency range
Xanthe 40Mz (later)	(later)
iXion 1 L1 or S1 or S2 band	L1 0,2-1,8 GHz S1 1,3-2,7 GHz S2 2,2-3,8 GHz L/S 0,2-3,8 GHz
iXion 2 L/S band	L/S 0,2-3,8 GHz
Number of link	



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