

X BAND DOWN CONVERTER

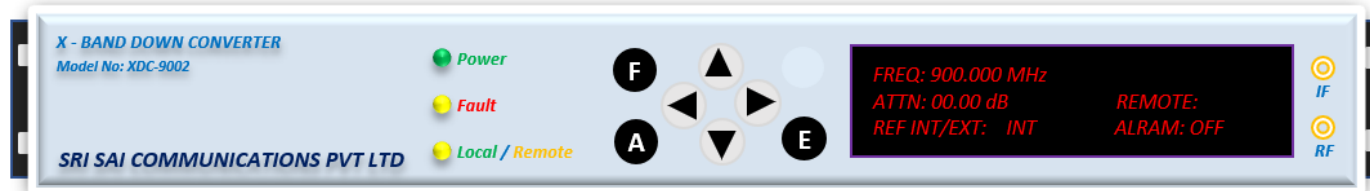
Model No : XDC-9002

Introduction

The unit receives the input signals in the range of 8 GHz to 8.50 GHz or 9 GHz to 10 GHz and down converts through dual conversion without inversion to 70MHz. Main features related to Gain, gain flatness, phase noise, spurious levels etc., are highlighted in this data sheet. The unit is locally controlled and monitored on front panel and also remotely controlled and monitored through different protocols like SNMP with web interface, TCP/IP, RS422 et., The unit is housed in a 1RU chassis with agile features to cater for reliability and mechanical stability. Unit operates on 230V AC input power and the environmental specs catered for use in indoor controlled operations.

Features

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| <ul style="list-style-type: none"> Excellent phase noise of Local Oscillators with OCXO internal reference Auto selectable Internal/External reference Very low in-band and out-of-band spurious M&C integration through SNMP, TCP IP, RS422, etc., Integration Protocols Remote Management through Web Interface Console | <ul style="list-style-type: none"> On-board state-of-the-art microcontroller <ul style="list-style-type: none"> Auto selectable Int./Ext. Reference Summary alarm with form-c for redundancy Memory storage facility for data recall Parameters like gain, frequency, etc are varied and displayed either on front panel or remote frontend |
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| Specification | Values | Specification | Values |
|---------------------------------------|--|--|--|
| Input (RF) | | M&C Features | |
| Input Frequency | 8 GHz to 8.50 GHz 9 GHz to 10 GHz | Front Panel | |
| Impedance | 50 Ω | Controls | Frequency, Attenuation, Local / Remote Selections |
| Return Loss | 18 dB Minimum | Monitoring | <ul style="list-style-type: none"> Frequency, Attenuation, Local / Remote, Ext/Int. on LCD Screen LED Status Indicators for Fault/Alarm, Power, Local/Remote |
| Noise Figure | Better than 12 dB | Remote Control & Monitoring | Through protocols like RS-485/422 or RS-232 or TCP IP Ethernet, etc |
| Typical Input Level | - 45 dBm | Connectors | |
| Connector | N Type (F) | Input RF | N Type (F) |
| Output (IF) | | Output IF | BNC Type (F) |
| Frequency | 70 MHz ±18 MHz | Sample | RF – SMA (F), IF - BNC (F) |
| Impedance | 50 Ω | Physical Dimensions | Form Factor 1RU 19” Rack Mountable |
| Return Loss | > 18 dB | Environmental | Temp. 0 – 50° C, 0 – 95% relative humidity and 8000 ft MSL |
| Power output @1 dB compression | +10 dBm, Minimum | Power Input | Power Voltage 90-230 V AC, Frequency 47 - 63 Hz (Options Available) |
| Connector | BNC, (F) | | |
| Transfer Characteristics | | | |
| Type | Dual Conversion | | |
| Frequency Sense | No inversion | | |
| Attenuation Adjust | 0-30 dB in .25 dB Steps | | |
| Conversion gain | 30 dB Min | | |
| Spurious | <ul style="list-style-type: none"> Non Carrier -70 dBm Carrier -50 dBc @ 0dBm Output | | |
| LO Characteristics | | | |
| 1 st Conversion Oscillator | Synthesizer with step size of 1 KHz | Phase Noise | -70 dBc @ 100 Hz -75 dBc @ 1 KHz -85 dBc @ 10 KHz -95 dBc @ 100 KHz |
| 2 nd Conversion Oscillator | Phase Locked Oscillator | | |
| 10 MHz Internal / External Reference | Auto select when external reference is fed | | |

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BLOCK DIAGRAM

