



DEM Part Number 144-28FRS

Low power 144 MHz Transverter for the Flex Radio System SDR-1000

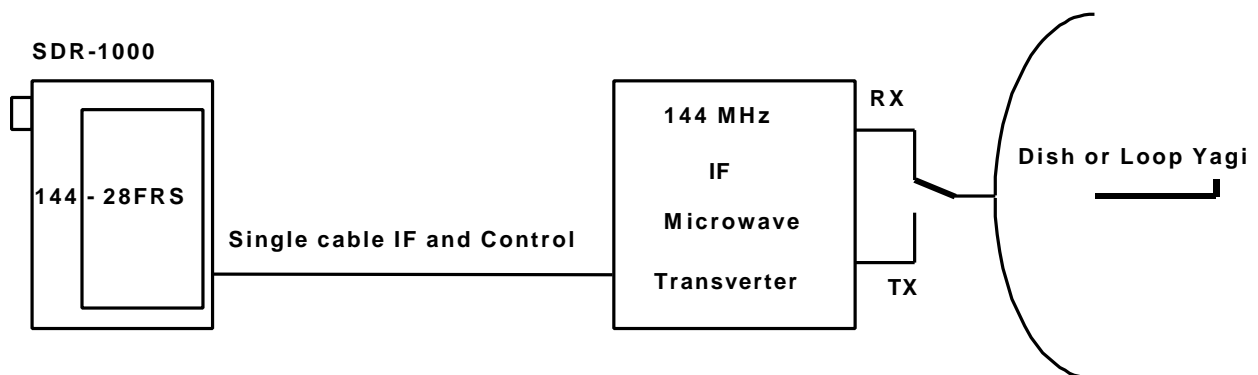
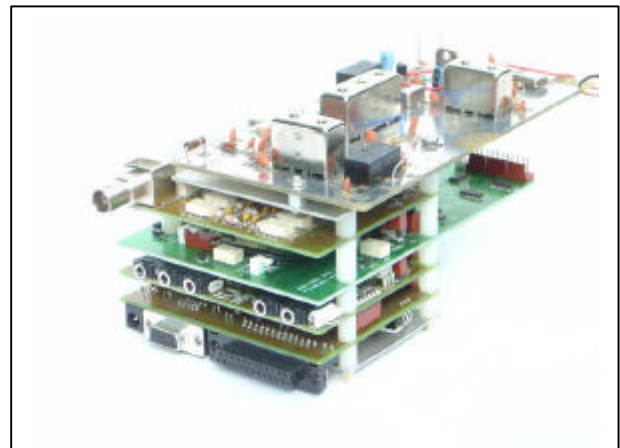
Operating Specifications:

Operating Voltage:	12.0 - 15.5 VDC, 13.8 nominal
Current Drain:	Receive / Transmit 400 mA maximum
Output Power:	5 - 10 mW nominal linear
Receive Noise Figure and gain:	3.5 dB NF maximum, 5 dB gain minimum

Operational Overview

The DEM 144-28FRS is a low power, high performance 144 MHz to 28 MHz transverter design to be used in conjunction with Flex Radio System's SDR-1000 Software Defined Radio transceiver. **This transverter is not designed to be used as a stand-alone 2-meter device!** It is intended to be used as a 2nd conversion IF for microwave transverters. The 144-28FRS has a nominal linear output power of 5 - 10 mW with the 28 MHz. IF drive provided by the SDR-1000. On the receive side, a high dynamic range amplifier, a high level double balanced mixer (+17.0 dBm) and a three chamber helical filter are employed to providing a over load proof, low gain front end with superior selectivity. It is similar design as our high performance 2 meter transverter without the GaAs FET front end. The transverter is complete with all interfacing required to install in the SDR1K-ENC enclosure and operate with the SDR-1000.

The 144 MHz input/output utilize BNC connectors (supplied in this kit) that are mounted in the existing holes in the SDR1K-ENC enclosure. The transverter also has a built in relay for external switching duties if required. It will "Shadow" the TR switch timing of the SDR-1000. The only external wiring required to operate a microwave transverter after the completion of this kit are a simple BNC cable or cables that will carry both TX and RX signals along with the keying voltage to activate the microwave transverters of choice transmit functions. It is a complete, simple to use transverter and will provide the highest 2 meter to microwave transverter performance on the market today. The 144-28FRS is offered as a assembled PCB with associated hardware to install in the SDR-1000. If you desire to assemble and test the PCB yourself, a complete kit is available under the DEM part number 144-28FRSK.



Typical setup of SDR-1000, DEM 144-28FRS and Microwave Transverter