

The RFX-400 provides a cost effective, extremely small form-factor UHF transceiver for spacecraft communication. It supports multiple modulation formats, encryption algorithms, and data protocols. It features very low power standby mode, digitally tunable frequency, and variable power output up to 8.1W. Applications include ground terminals, cubesat RF modules, and ground gateway stations.

| RFX-400  |  |                     |   |
|--|--|---------------------|---|
| UHF Transceiver  |  | Electrical          |   |
| Frequency Range  | 387 – 464 MHz<br>(90µsec settling time)                    | Input Voltage       | 7.5 – 18V   |
| Sensitivity  | -122dBm  | Power               | <800µW Standby  |
| Output Power   | <1mW to +8.1W<br>digitally adjustable                      |                     | 200mW Receive<br>225mA @ 1W Transmit  |
| Data Rate  | 1.2 – 500 kbps   |                     |   |
| Modulation   | 2-FSK, GFSK, MSK,  |                     |   |
|  | Shaping  | Format              | 1.8″Lx2.8″Wx0.75″H  |
| Telemetry  | Digital RSSI<br>PA Temperature                             | Mass                | approx. 53 grams  |
| Antenna Connector  | SMA  |                     |   |
| Data Interface   |  | Additional Features |   |
| I/O Format   | RS-232, RS-422, LVDS,<br>TTL                               | Encryption (FPGA)   | DES<br>AES  |
| I/O Protocols  | Asynchronous<br>Svnchronous                                | Encryption (H/W)    | Type-I (under<br>development)   |
| Data Formats   | Packetized or<br>continuous stream                         | Custom Capabilities | <ul> <li>User-specific FPGA<br/>resources</li> <li>Custom data<br/>processing software</li> </ul> |
| Error Detection  | CRC on packets<br>Available FEC                            | Additional Modules  |   |
|  |  | AIS Rx (2 ch)       | ITU-R M.1371-1<br>Compliant<br>161.975 MHz and<br>162.025 MHz                                     |
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| •TIGER INNOVATIONS•  | contact us for a quote or additional customization options |                     |   |