Be-1 and Be-2
S-Band ISM

AstroDev

Form Factor

- PCB Mount Module - 46mm x 46mm x 10.5mm, 32 grams
- SMA RF Connector
- M2 Screw Mount
- RF Component Architecture (no more integrated PA)

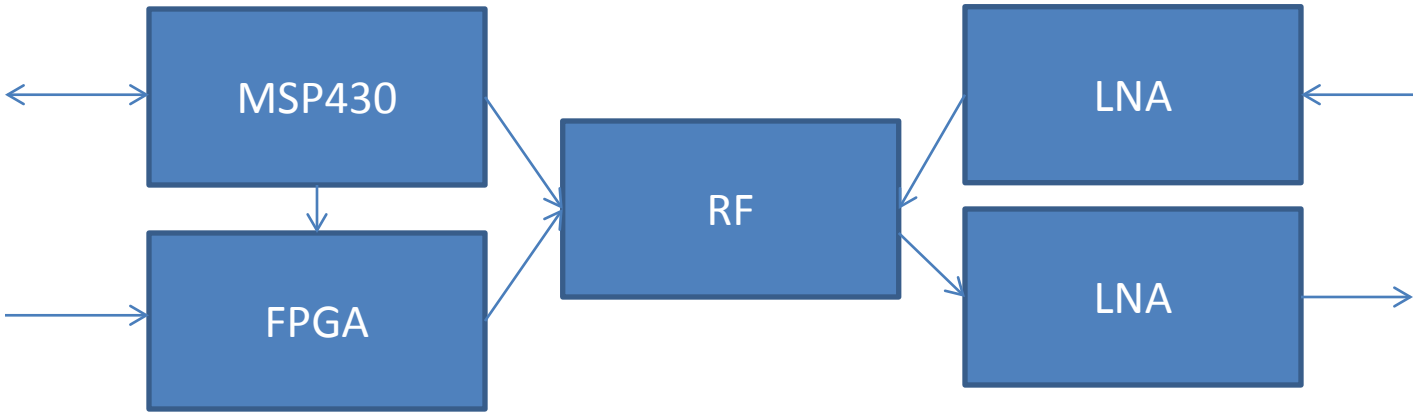
Electrical/Software

- External pins to flash internal MSP430 and FPGA to handle any protocol, FEC, etc (AX.25 default)
- UART interface up to 0.5 Mbps or High speed mode to 5 Mbps
- 5V @ ~75 mA in TX*, ~55 mA in RX*
- $3500 Be-1 (TX) and $5000 Be-2 (RX/TX)

*In low output power mode, extended range output (>3dBm) and high sensitivity mode take more power.

TX Performance

- 10-2000 kbps, 1 kbps steps
- GFSK
- BT = 0.25 to 2.0
- AX.25 (Or any other custom protocol)
- +3 dBm

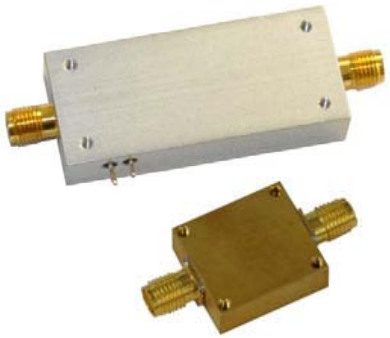


RX Performance

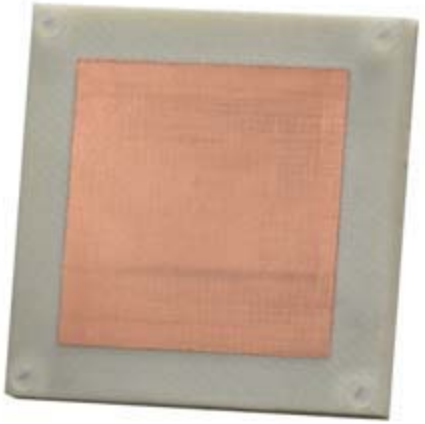
- 10-2000 kbps, 1 kbps steps
- GFSK
- BT = 0.25 to 2.0
- AX.25
- -85 dBm @ 1000 kbps & 1x10-6 BER

SBand Amplifier, etc

- 1 Watt Module (integrated switching)
- LNA Module (needed only in certain installations)
- High Power RF Switch and other components (Coming soon)



Antenna



- Multi Layer Patch
  - As small as 40mmx40mmx4mm
- 6 to 7 dBi, RHCP/LHCP
  - Bigger ground plane = more gain
- SMA or MCX; Straight or Right Angle
- 0x80 corner screw mount
- 20 produced to date
- Expected on orbit 2014