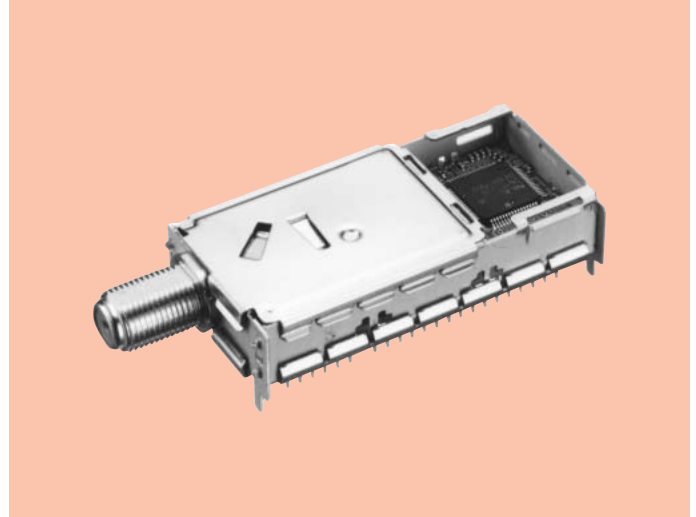


2nd RF Units for BS Digital Broadcasting Receiver TSU37 Series

Terrestrial Tuners, DBS 2nd RF Units

OUTLINE

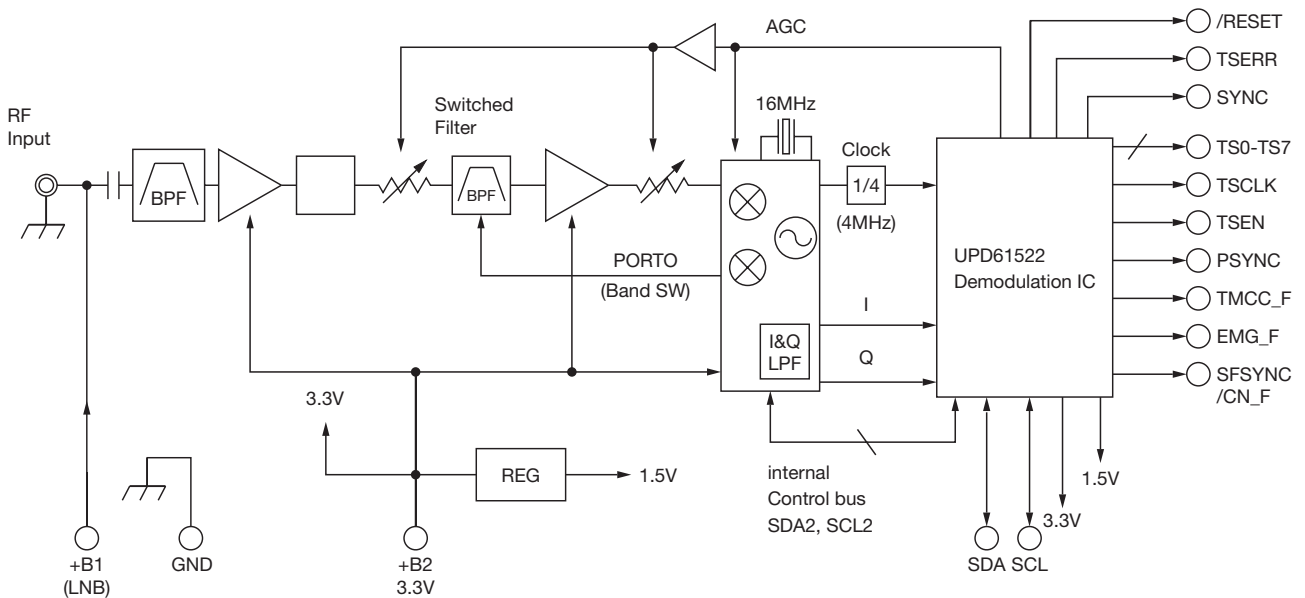
This is an ultra-small second RF unit for BS digital broadcast/reception, incorporating a demodulation IC and capable of receiving BS digital, 110 degree CS and conventional CS. Because it is ultra-small with a single power supply, it can be used for a variety of purposes, such as thin receivers.



FEATURES

1. Excellent BER characteristics even for 110 degree CS reception. (8PSK, 950 - 2150MHz)
2. Ultra-small size achieved through adoption of direct conversion IC in the RF section. (20cc)
3. Contains ISDB high-function and high-performance demodulation IC that supports ISDB-S.
4. High sensitivity (-80dBm, typ.) with good interference characteristics.
5. Excellent phase noise characteristics and high C/N margin.
6. Supports vertical/horizontal configuration. (Ideal for slim TVs, PC expansion slots, etc.)
7. Supply voltage driven by 3.3V single power supply.

BLOCK DIAGRAM

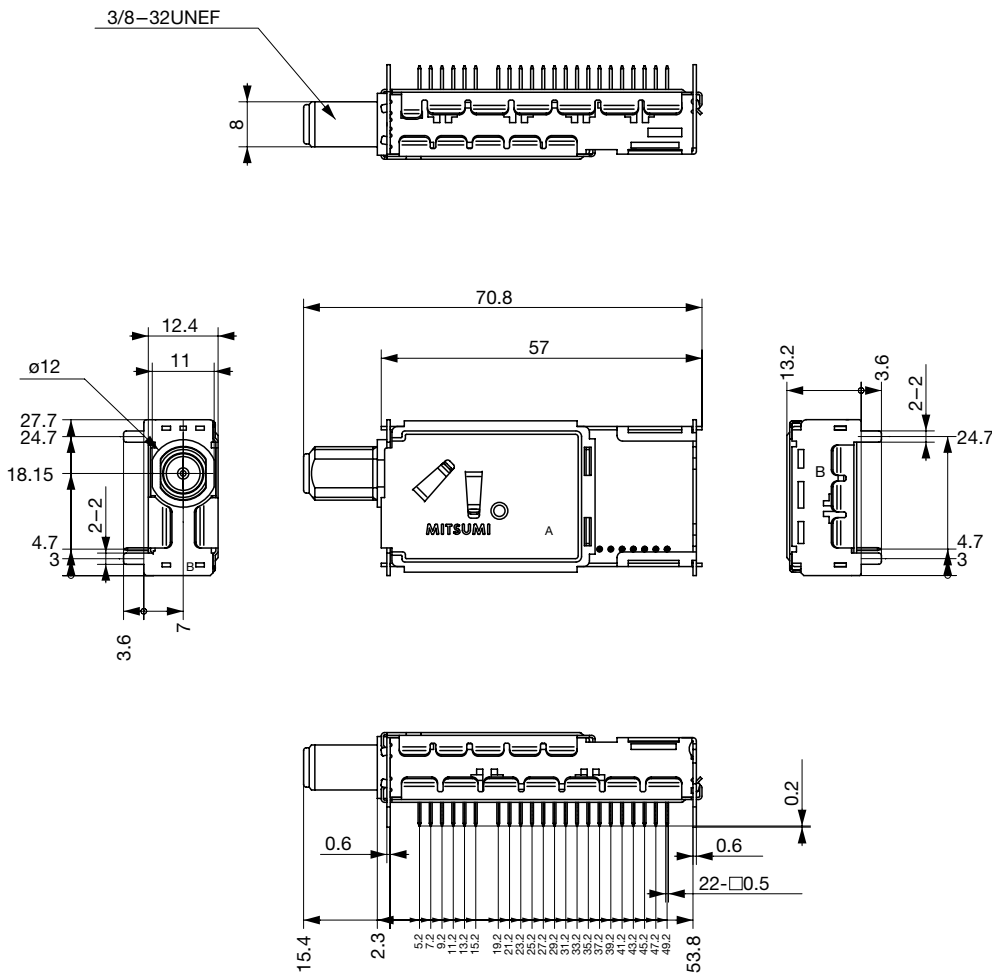


SPECIFICATIONS

| Item | Specifications |
|---------------------------|----------------------------------------------------|
| Input Frequency Range | 950~2150MHz |
| Input Level Range | -65~-25dBm |
| Input Impedance | 75Ω |
| Return Loss | -7dB max. |
| Symbol Rate Range | 28.86Mbaud |
| Modulation Type | TC8PSK, QPSK, BPSK |
| Demodulator Standard | Based on ISDB-S |
| FEC Rates | BPSK, QPSK (1/2, 2/3, 3/4, 5/6, 7/8), TC8PSK (2/3) |
| Output Data | 8bit parallel TS/serial TS |
| Controller Bus Interface | I ² C BUS Control |
| Power Supply Voltage | 3.3V |
| Dimension (Mounting area) | 56.7 (W)×28.1 (D)×12.4 (H)mm |

★Note Specifications subject to change without notice.

DIMENSIONS



| Terminals |
|----------------|
| 1. RF IN |
| 2. +B1 (LNBIN) |
| 3. GND |
| 4. +B2 (3.3V) |
| 5. SFSYNC/CN_F |
| 6. TMCC_F |
| 7. EMG-F |
| 8. TSERR |
| 9. TSEN |
| 10. SCL |
| 11. SDA |
| 12. SYNC |
| 13. TS0 |
| 14. TS1 |
| 15. TS2 |
| 16. TS3 |
| 17. TS4 |
| 18. TS5 |
| 19. TS6 (SDEN) |
| 20. TS7 (SDOA) |
| 21. TSCLK |
| 22. PSYNC |
| 23. /RESET |

Unit : mm
General Tolerance : ±0.5mm