

# 6502B

## RF Distribution Module



### Summary

The Microchip 6502B distribution module is a 10-channel RF distribution amplifier packaged in a 1U rack mount chassis. The 6502B is comprised of 10, low-phase-noise RF amplifiers that maintain high channel isolation (>100 dB). Up to 10 units can be daisy chained together to provide up to 100 outputs. For maximum expansion, each output of one unit can be used as a source for other 6502B units to provide almost infinite expansion capability with virtually no signal degradation.

The 6502B standard configuration accepts input frequencies from 0.1 MHz to 10 MHz at 1 Vrms amplitude and provides 10 buffered outputs. Each output and input has an alarm indicator that warns of either a loss of signal or insufficient amplitude.

### Features

- Low phase noise
- High channel isolation
- 10-channel output distribution
- Daisy chain for more than 100 outputs

### Rear View



## Specifications

### Stability

- RF output (ten)
  - Frequency: 0.1 to 10 MHz
  - Level: 1 Vrms (nominal)
  - Gain: 1 (nominal)
  - Harmonic distortion: <-40 dB
  - Non-harmonic signals: <-80 dB
  - Load impedance: 50Ω
  - Isolation: >100 dB
  - Connectors: BNC
- Additive SSB phase noise

Bandwidth	Offset from Carrier
1 Hz	-120 dB
10 Hz	-135 dB
100 Hz	-145 dB
1 kHz	-155 dB
10 kHz	-160 dB

- RF input
  - Frequency: 0.1 to 10 MHz
  - Level: 1 Vrms (nominal)
- Impedance: 50Ω or Unterminated
- Alarm output
  - Summary alarm indicates failure of any output signal.
  - Each output and main: Red LED
  - Non-alarm condition: Relay energized (fail safe) C Form contacts
  - Alarm output disable: Panel switch
  - Connector: 9-pin D-male
- Controls and indicators
  - Power: Green LED, power is: connected
  - Alarm: Red LED, signal output: failure

Note: If input level is less than 10 dBm, specify low-alarm threshold version (-509).

### Environmental and Physical

- Temperature (operating): 0°C to 55°C
- Relative humidity: 0 to 95%, non-condensing
- Power requirements
  - AC input (±10%): 100 to 120 V<sub>AC</sub>, <10W: 180 - 240 V<sub>AC</sub>, <10W
  - DC input (optional): 22V to 56 V<sub>DC</sub>, <10W
- Dimensions
  - Height: 1U (1.75 inches) (4.44 cm)
  - Width: 19" (48.26 cm)
  - Depth: 12" (30.48 cm)
  - Weight: <5 lbs. (2.25 Kg)
- MTBF: >500,000 hrs

### Standards

- Safety: IEC 61010-1:2010/EN 61010-1:2010
- EMC
  - EN61326-1 (2006) EMC Requirements for Measurement, Control and Laboratory Equipment, Class A
  - EN61000-3-2 (2006) +A1+A2 Harmonic Current Emissions
  - EN61000-3-3 (2008) Voltage Fluctuation and Flicker Emissions
- RoHS: 5/6

### Ordering Information

Part Number	Description
14364-101	6502B Standard Configuration
14364-104	6502B with option 509 Standard config with low level input threshold (0dbm)

Contact Microchip for availability.