The Microsemi 6502B distribution module is a ten channel, RF distribution amplifier packaged in a 1U rack mount chassis. The 6502B is comprised of ten, low phase noise RF amplifiers that maintain high channel isolation (>100 dB). Up to ten 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 ten 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
- Ten channel output distribution
- Daisy chain for more than 100 outputs
- CE-compliant
## 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**: 50 Ω
  - **Isolation**: >100 dB
  - **Connectors**: BNC
- **Additive SSB phase noise**

<table>
<thead>
<tr>
<th>Bandwidth</th>
<th>Offset from Carrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hz</td>
<td>–120 dB</td>
</tr>
<tr>
<td>10 Hz</td>
<td>–135 dB</td>
</tr>
<tr>
<td>100 Hz</td>
<td>–145 dB</td>
</tr>
<tr>
<td>1 kHz</td>
<td>–155 dB</td>
</tr>
<tr>
<td>10 kHz</td>
<td>–160 dB</td>
</tr>
</tbody>
</table>

- **RF input**
  - **Frequency**: 0.1 to 10 MHz
  - **Level**: 1 Vrms (nominal)
  - **Impedance**: 50 Ω 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

### Environmental and Physical
- **Temperature (operating)**: 0 °C to 55 °C
- **Relative humidity**: 0 to 95%, non-condensing
- **Power requirements**
  - **AC input (±10%)**: 100 - 120 VAC, <10W
  - **180 - 240 VAC, <10W**
  - **DC input (optional)**: 22 V to 56 VDC, <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
  - EN61000-3-3 (2008) Voltage Fluctuation and Flicker Emissions
- **RoHS**: This product is exempted from the Restrictive Substance Requirements of the RoHS Directive under Category 9 (Monitoring and Control Instruments including Industrial Monitoring and Control instruments) as defined by 2011/65/EU Annex 1.

### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14364-101</td>
<td>6502B Standard Configuration</td>
</tr>
<tr>
<td>14364-104</td>
<td>6502B with option 509</td>
</tr>
</tbody>
</table>

Contact Microsemi for availability.

---

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