

| Model | Frequency Range (GHz) | Output Power (25°C ±5°C) | | Power Level Accuracy | | | Leveled Power Variation | | Source SWR (Leveled Power) | Source SWR With Opt. 2, 70 dB Attenuator | Signal Purity @ Rated Power | | | Frequency Accuracy ⁵ | | Frequency Stability | | |
|-----------------------------|-----------------------|---------------------------------|------------------------------------|-------------------------|------------------------------------|---------------------------------------|------------------------------------|--|--|--|---|--------------------------------|---|---------------------------------|--------------------------|----------------------------------|-------------------------------------|-------------------------|
| | | Internally Leveled Maximum (mW) | With Opt. 2, 70 dB Attenuator (mW) | Leveled (dB) | With Opt. 2, 70 dB Attenuator (dB) | Attenuator Accuracy Per Step Add (dB) | With Frequency (dB) | With Frequency Opt. 2, 70 dB Attenuator (dB) | | | Harmonics (dBc) | Non-Harmonics (dBc) | Residual FM ¹ (kHz peak) | Cw Mode (MHz) | Sweep Mode ≤50 MHz (MHz) | With Temperature (MHz/°C) | With 10 dB Power Level Change (kHz) | With 3:1 Load SWR (kHz) |
| 6609B 6609B-50 | 0.01 to 2 | >20 >50 | >17.8 >44.5 | ±0.6 | ±0.8 | ±0.3 | ±0.3 | ±0.8 | 1.3 | 1.5 | <-30 <-20 | <-40 | <7 | ±5 | ±10 | ±1 | ±100 | ±100 |
| 6610B | 1 to 2 | >20 | >17.8 | ±1 | ±1.5 | ±0.4 | ±0.3 | ±0.5 | 1.3 | 1.5 | <-30 ² | <-60 | <7 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6616B | 1.7 to 4.3 | >10 | >7.8 | ±1 | ±1.5 | ±0.4 | ±0.4 | ±0.7 | 1.2 | 1.5 | <-20 (<2.26 GHz) <-30 (≥2.26 GHz) | <-60 | <7 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6617B 6617B-40 | 0.01 to 8 | >10 >40 | >7.9 >31.6 | ±0.9 | ±1 | ±0.4 | ±0.5 | ±1 | 1.5 | 1.5 | <-30 (≤2 GHz) <-40 (>2 GHz) <-20 (≤2 GHz) <-25 (>2 GHz) | <-40 (≤2 GHz) <-60 (>2 GHz) | <7 | ±5 | ±10 | ±1 (≤2 GHz) ±0.5 (>2 GHz) | ±100 | ±100 |
| 6619B 6619B-40 | 2 to 8 | >10 >40 | >7.9 >31.6 | ±1 | ±1.5 | ±0.4 | ±0.4 | ±0.9 | 1.5 | 1.5 | <-40 <-25 | <-60 | <7 | ±10 | ±15 | ±0.5 | ±100 | ±100 |
| 6620B | 3.6 to 6.5 | >20 | >15.6 | ±1 | ±1.5 | ±0.4 | ±0.3 (±0.03 dB/30 MHz) | ±0.8 | 1.5 | 1.5 | <-40 <-25 | <-60 | <7 | ±10 | ±15 | ±0.5 | ±100 | ±100 |
| 6621B 6621B-40 | 2 to 12.4 | >10 >40 | >7.4 >29.5 | ±1 | ±1.5 | ±0.4 | ±0.5 | ±1.4 | 1.5 | 1.5 | <-40 <-25 | <-60 | <7 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6622B 6622B-40 | 0.01 to 12.4 | >10 >40 | >7.4 >29.5 | ±1 | ±1.5 | ±0.4 | ±0.5 | ±1.4 | 1.5 | 1.5 | <-30 (≤2 GHz) <-40 (>2 GHz) <-20 (≤2 GHz) <-25 (>2 GHz) | <-40 (≤2 GHz) <-60 (>2 GHz) | <7 (≤8 GHz) <10 (>8 GHz) | ±10 | ±15 | ±1 (≤2 GHz) ±0.5 (>2 GHz) | ±500 | ±300 |
| 6624B | 4 to 8 | >10 | >7.8 | ±1 | ±1.5 | ±0.4 | ±0.4 | ±0.9 | 1.5 | 1.5 | <-30 ² | <-60 | <7 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6627B | 5.9 to 9.0 | >10 | >7.8 | ±1 | ±1.5 | ±0.4 | ±0.3 | ±0.8 | 1.5 | 1.8 | <-40 | <-60 | <10 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6628B 6628B-50 | 8 to 12.4 | >10 >50 | >7.4 >37.2 | ±1 | ±1.5 | ±0.4 | ±0.4 | ±0.9 | 1.5 | 1.8 | <-40 <-25 | <-60 | <10 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6629B 6629B-40 | 8 to 20 | >10 >40 | >6.6 >26.3 | ±1 | ±1.5 | ±0.4 | ±0.5 | ±1.5 | 1.5 | 1.6 (≤12.4 GHz) 1.8 (>12.4 GHz) | <-40 <-25 | <-60 | <10 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6630B 6630B-50 | 12.4 to 20 | >10 >50 | >6.6 >33.9 | ±1 | ±1.5 | ±0.4 | ±0.5 | ±1 | 1.5 | 1.8 | <-32 <-25 | <-60 | <10 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6631B | 10 to 15.5 | >10 | >7 | ±1 | ±1.5 | ±0.4 | ±0.4 | ±0.9 | 1.5 | 1.8 | <-40 <-25 | <-60 | <10 | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6632B | 17 to 22 | >5 | >3.2 | ±1 | ±3 | ±0.7 | ±0.8 | ±2.3 | 1.7 | 2 | <-40 | <-60 | <10 | ±15 | ±25 | ±1 | ±500 | ±300 |
| 6635B 6635B-40 | 2 to 18 | >10 >40 | >6.6 >26.3 | ±1 | ±1.5 | ±0.4 | ±0.5 | ±1.5 | 1.5 | 1.5 (<8 GHz) 1.6 (8–12.4 GHz) 1.8 (>12.4 GHz) | <-40 <-25 | <-60 | <7 (<8 GHz) <10 (>8 GHz) | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6636B | 18 to 26.5 | >3.1 | >1.2 | ±1 | ±3 | ±0.7 | ±1 | ±2.5 | 1.7 | 2 | <-40 | <-60 | <30 | ±15 | ±25 | ±2 | ±500 | ±300 |
| 6637B 6637B-40 | 2 to 20 | >10 >40 | >6.6 >26.3 | ±1 | ±1.5 | ±0.4 | ±0.5 | ±1.5 | 1.5 | 1.7 (≤12.4 GHz) 2 (>12.4 GHz) | <-40 <-25 | <-60 | <7 (<8 GHz) <10 (>8 GHz) | ±10 | ±15 | ±0.5 | ±500 | ±300 |
| 6640B 6640B-10 | 26.5 to 40 | >1 ³ >10 | N/A >5 | N/A ±1 | N/A ±2 | N/A ±1 | N/A ±1 | N/A ±2 | N/A 2.0 | N/A | <-30 ² | <-60 | <40 | ±20 | ±30 | ±2 | ±500 | ±300 |
| 6645B 6645B-40 | 0.01 to 18 | >10 >40 | >6.6 >26.3 | ±1 | ±1.5 | ±0.4 | ±0.6 | ±1.5 | 1.5 | 1.5 (<8 GHz) 1.6 (8–12.4 GHz) 1.8 (>12.4 GHz) | <-30 (≤2 GHz) <-40 (>2 GHz) <-20 (≤2 GHz) <-25 (>2 GHz) | <-40 (≤2 GHz) <-60 (>2 GHz) | <7 (≤8 GHz) <10 (>8 GHz) | ±10 | ±15 | ±1 (≤2 GHz) ±0.5 (>2 GHz) | ±500 | ±300 |
| 6647B 6647B-40 | 0.01 to 20 | >10 >40 | >6.6 >26.3 | ±1 | ±1.5 | ±0.4 | ±0.6 | ±1.5 | 1.5 | 1.7 (≤12.4 GHz) 2 (>12.4 GHz) | <-30 (≤2 GHz) <-40 (>2 GHz) <-20 (≤2 GHz) <-25 (>2 GHz) | <-40 (≤2 GHz) <-60 (>2 GHz) | <7 (≤8 GHz) <10 (>8 GHz) | ±10 | ±15 | ±1 (≤2 GHz) ±0.5 (>2 GHz) | ±500 | ±300 |
| 6653B | 2 to 26.5 | >10 (≤18 GHz) >5 (>18 GHz) | >5 (≤18 GHz) >2 (>18 GHz) | ±1.5 | ±2.0 | ±0.7 | ±1.0 | ±1.5 | 1.5 (≤18 GHz) 1.7 (>18 GHz) | 1.7 (≤12.4 GHz) 2 (>12.4 GHz) | <-40 | <-60 | <7 (<8 GHz) <10 (8–18 GHz) <15 (>18 GHz) | ±20 | ±30 | ±1 | ±500 | ±300 |
| 6659B | 0.01 to 26.5 | >10 (≤18 GHz) >5 (>18 GHz) | >5 (≤18 GHz) >2 (>18 GHz) | ±1.5 | ±2.0 | ±0.7 | ±1.0 | ±1.5 | 1.5 (≤18 GHz) 1.7 (>18 GHz) | 1.7 (≤12.4 GHz) 2 (>12.4 GHz) | <-30 (<2 GHz) <-40 (>2 GHz) | <-40 (≤2 GHz) <-60 (>2 GHz) | <7 (<8 GHz) <10 (8–18 GHz) <15 (>18 GHz) | ±20 | ±30 | ±1 (≤2 GHz) ±0.5 (>2 GHz) | ±500 | ±300 |
| 6660B | 12.4 to 40 | >4 | >2 | ±2 | ±2.5 | ±1 | ±1.5 | ±2 | 1.5 (≤18 GHz) 1.7 (18–26.5 GHz) 2 (>26.5 GHz) | N/A | <-40 (≤26.5 GHz) <-20 (>26.5 GHz) | <-60 | <10 (<18 GHz) <15 (18–26.5 GHz) <20 (>26.5 GHz) | ±20 | ±30 | ±1 (≤26.5 GHz) ±2 (>26.5 GHz) | ±300 | ±300 |
| 6662B ⁷ 6663B | 2 to 40 | >10 (≤18 GHz) >4 (>18 GHz) | N/A | ±1.5 N/A (>26.5 GHz) | N/A | N/A | ±1 N/A (>26.5 GHz) | N/A | 1.5 (≤18 GHz) 1.7 (>18 GHz) N/A (>26.5 GHz) | 1.25 (<8 GHz) 1.45 (8–12.4 GHz) 1.5 (12.4–20 GHz) 1.6 (20–26.5 GHz) 1.7 (>18 GHz) 2.1 (26.5–40 GHz) | <-40 (≤26.5 GHz) <-30 (>26.5 GHz) ² | <-60 | <7 (<8 GHz) <10 (8–18 GHz) <15 (18–26.5 GHz) <20 (>26.5 GHz) | ±20 | ±30 | ±1 (≤26.5 GHz) ±2 (>26.5 GHz) | ±500 | ±300 |
| 6668B ⁸ 6669B | 0.01 to 40 | >10 (≤18 GHz) >4 (>18 GHz) | N/A | ±1.5 N/A (>26.5 GHz) | N/A | N/A | ±1 N/A (>26.5 GHz) ¹ | N/A | 1.5 (≤18 GHz) 1.7 (>18 GHz) N/A (>26.5 GHz) ³ | 1.25 (<8 GHz) 1.45 (8–12.4 GHz) 1.6 (12.4–20 GHz) 1.8 (20–26.5 GHz) 2.1 (26.5–40 GHz) | <-30 (<2 GHz) <-40 (2–26.5 GHz) <-30 (>26.5 GHz) ² | <-40 (≤2 GHz) <-60 (>2 GHz) | <7 (<8 GHz) <10 (8–18 GHz) <15 (18–26.5 GHz) <20 (>26.5 GHz) | ±20 | ±30 | ±1 (≤26.5 GHz) ±2 (>26.5 GHz) | ±500 | ±300 |
| 6672B | 40 to 60 | >1 ³ | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | <-20 ⁹ | <-60 | <50 | ±30 | ±45 | ±3 | N/A | ±300 |

¹External leveling only ²Excluding 5% band edges where specification is >20 dBc ³Measured in 30 Hz-15 kHz bandwidth ⁴Subharmonics ⁵At 25°C ⁶Dual outputs: 0.01–26.5 GHz and 26.5–40 GHz ⁷Dual outputs: 2–26.5 GHz and 26.5–40 GHz

Figure 1-2. Performance Specifications