

Product Specifications (continued)

Model Number	83020A	83050A	83051A
Frequency Range	2–26.5 GHz	2–50 GHz	45 MHz–50 GHz
Small Signal Gain	30 dB typ 1–2 GHz 30 dB min 2–20 GHz 27 dB min 20–26.5 GHz	21 dB min	23 dB min
Small Signal Gain Flatness	±5 dB typ	±3.5 dB max	±3.5 dB max
Output Power (At P max)	+30 dBm typ 1–2 GHz ² +30 dBm min 2–20 GHz ^{2,3} +30 dBm –0.7 dB/GHz ^{2,3} (20<f<26.5 GHz)	+20 dBm 2–40 GHz +19 dBm–0.2 dB/GHz (40<f<50 GHz)	+12 dBm to 45 GHz +10 dBm 45–50 GHz
(At 1 dB compression)	+28 dBm typ 1–2 GHz +28 dBm min 2–20 GHz +28 dBm–0.7 dB/GHz (20<f<26.5 GHz)	+15 dBm 2–40 GHz +13 dBm 40–50 GHz	+8 dBm 45 MHz–45 GHz +6 dBm 45–50 GHz
Leveled Output Power Flatness¹	±1.5 dB typ 1–26.5 GHz At 23 dBm	N/A	N/A
Noise Figure	<10 dB typ 1–20 GHz <13 dB typ 20–26.5 GHz	<6 dB typ 2–26.5 GHz <10 dB typ 26.5–50 GHz	<12 dB typ 45 MHz–2 GHz <6 dB typ 2–26.5 GHz <10 dB typ 26.5–50 GHz
Harmonics (At Spec'd value of P1 dBC)	–22 dBc typ 1–2 GHz –20 dBc typ 2–11 GHz –17 dBc typ 11–13.25 GHz	–20 dBc typ 2–18 GHz –18 dBc typ 18–25 GHz	–20 dBc typ 45 MHz–18 GHz –18 dBc typ 18–25 GHz
Harmonics (At Spec'd max power)	–20 dBc typ 1–2 GHz –17 dBc typ 2–11 GHz –17 dBc typ 11–13.25 GHz	N/A	N/A
Input SWR	3:1 typ 1–26.5 GHz	2.1 max	2.1 max
Output SWR	7.0:1 typ 1–2 GHz 4.5:1 2–10 GHz 2.2:1 10–26.5 GHz	2.8 max 2–18 GHz 2.1 max 18–50 GHz	2.2 max
Non-Harmonically Related Spurious	–65 dBc typ	–50 dBc typ	–50 dBc typ
Rise Time	375 ps typ	250 ps typ	225 ps typ
Third Order Intercept (TOI)	38 dBm typ 2–20 GHz 33 dBm typ 20–26.5 GHz	27 dBm typ	27 dBm typ
Impedance	50Ω typ	50Ω typ	50Ω typ
Reverse Isolation (typ)	–55 dB	–50 dB typ	–50 dB typ
Survival Input Power	+23 dBm max	+20 dBm max	+20 dBm max
Power Dissipation	48 W	11 W	5 W

1. At min specified P1 dBC within given frequency band

2. P max measured with +5 dBm input

3. Option 001 deletes detected output, for Pmax add 0.5 dBm 1–26.5 GHz

Special Applications: Higher performance models available upon request (i.e., higher power, etc.)