

Audio Preamplifier Selector

| | | 1510 | 1512 | 1570 | 1580 | 1583 |
|----------------------------------|--|---------------------------------------|--|--|--|--|
| Industry Std Pinout | | Yes | Yes | No | No | No |
| Feedback Configuration | | Fixed | Fixed | Flexible | Flexible | Flexible |
| Output Configuration | | Single-ended | Single-ended | Differential | Differential | Differential |
| EIN | 0dB, Rs=0Ω 60dB, Rs=0Ω 60dB, Rs=150Ω | -99.7 dBu -134.8 dBu -128.9 dBu | -104.1 dBu -134.8 dBu -128.9 dBu | -109.4 dBu -134.8 dBu -128.9 dBu | -109.4 dBu -134.8 dBu -128.9 dBu | -102.8 dBu -128.9 dBu -126.5 dBu |
| THD+N | 60dB | 0.005 % | 0.008 % | 0.006 % | 0.005 % | 0.006 % |
| Bandwidth -3dB (small signal) | 60dB | 3 MHz | 1.6 MHz | 0.6 MHz | 0.4 MHz | 0.19 MHz |
| Slew Rate | | 19 V/μs | 19 V/μs | 53 V/μs | 53 V/μs | 50 V/μs |
| Supply Voltage | Min Max | ±5 V ±20 V | ±5 V ±20 V | ±5 V ±18 V | ±5 V ±18 V | ±5 V ±18 V |
| Packages | | SO-8, DIP-8 SO-14 SO16-Wide | SO-8 DIP-8 SO-14 | QFN-16 | QFN-16 | QFN-16 |

Digitally Controlled Mic Preamp Chip Sets

| | | 1570/ 5171 | 1580/ 5171 | 1570/ 5173 | 1580/ 5173 | 1583/ 5173 |
|----------------|--|--|---|---|---|---|
| Gain Range | | 5.6 dB, 13.6 - 68.6 dB (0, 8-63 dB with 5.6 dB attenuation) | | 0 - 60 dB | | |
| Step Size | | 1 dB | | 3 dB | | |
| Max Gain Error | Typ Max | 0.15 dB 0.5 dB | 0.15 dB 0.5 dB | 0.2 dB 0.5 dB | 0.2 dB 0.5 dB | 0.2 dB 0.5 dB |
| EIN | 0dB, Rs=150Ω 30dB, Rs=150Ω 60dB, Rs=150Ω | -108 dBu -124 dBu -128 dBu | -108 dBu -124 dBu -128 dBu | -106 dBu -122 dBu -127 dBu | -106 dBu -122 dBu -127 dBu | -100 dBu -118 dBu -125 dBu |
| THD+N | 21dB | 0.0003 % | 0.0003 % | 0.0005 % | 0.0005 % | 0.0006 % |
| Max Input | 0dB 30dB 60dB | 21 dBu -3 dBu -33 dBu | 21 dBu -3 dBu -33 dBu | 26.8 dBu -3 dBu -33 dBu | 26 dBu -3 dBu -33 dBu | 26.4 dBu -3 dBu -33 dBu |
| Supply Voltage | | ±5 to ±17 V | ±5 to ±17 V | ±5 to ±17 V | ±5 to ±17 V | ±5 to ±17 V |
| Supply Current | | 7.5 mA (1570) 8.3 mA (5171) 15.8 mA (Total) | 7.9 mA (1580) 8.3 mA (5171) 16.2 mA (Total) | 7.5 mA (1570) 7.6 mA (5173) 15.1 mA (Total) | 7.9 mA (1580) 7.6 mA (5173) 15.5 mA (Total) | 7.0 mA (1583) 7.6 mA (5173) 14.6 mA (Total) |
| Packages | | QFN16 (1570/1580) QFN32 (5171) | | QFN16 (1570/1580/1583) QFN24 (5173) | | |