

# Power Amplifiers – Broadband 0.2 to 100 Watts

- ✓ **Solid-State Power Amplifiers from 0.2 to 100 Watts**
- ✓ **Frequency Coverage from 0.5 GHz to 40 GHz**
- ✓ **MIC Thin-Film Design for High Reliability**
- ✓ **Custom Engineered Options (CEOs)**



**Power Amplifiers are CTT's forte.** Over the past 20 years, the preponderance of our research and development has been devoted to this market segment. As a result, numerous proprietary, unique approaches to microwave power amplification have been incorporated in, both our narrow-band, and broad-band power amplifiers. For example, development in low-loss broad-band output stage power combiners allow CTT to deliver **6–18 GHz, 10 Watt amplifiers in volume – an industry first!**

In narrow band applications, CTT's ability to deliver 40 Watts at X-band and 100 Watts at C-band has allowed system designers to eliminate intermediate amplification stages formerly required; thus, improving overall system reliability as well as reducing cost.

CTT's most recent contribution to microwave power is focused on the automated production of power modules.

This capital investment has improved individual productivity by a factor of 3, and

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| Model Number | Frequency Response (GHz) | Gain (dB) | Gain Flatness (±dB) | Noise Figure (dB) | P1dB (+dBm) | VSWR In/Out | Volts (DC) | DC Current (mA) | Case  |
|--------------|--------------------------|-----------|---------------------|-------------------|-------------|-------------|------------|-----------------|-------|
|              | Min                      | Min       | Max                 | Max               | Min         | Max         | Typ        | Typ             | Max   |
| APM/020-2416 | 0.5-2.0                  | 16        | 1.00                | 8.0               | 24          | 2:1         | 15         | 280             | HC2   |
| APM/020-2425 | 0.5-2.0                  | 25        | 1.00                | 4.5               | 24          | 2:1         | 15         | 330             | HC2   |
| APM/020-2435 | 0.5-2.0                  | 35        | 1.25                | 4.5               | 24          | 2:1         | 15         | 380             | HC2   |
| APM/020-2715 | 0.5-2.0                  | 15        | 1.00                | 8.5               | 27          | 2:1         | 15         | 450             | HC2   |
| APM/020-2724 | 0.5-2.0                  | 24        | 1.25                | 5.0               | 27          | 2:1         | 15         | 520             | HC2   |
| APM/020-2733 | 0.5-2.0                  | 33        | 1.50                | 4.5               | 27          | 2:1         | 15         | 580             | HC2   |
| APM/020-2746 | 0.5-2.0                  | 46        | 1.75                | 4.5               | 27          | 2:1         | 15         | 680             | HC4   |
| APM/020-3010 | 0.5-2.0                  | 10        | 1.00                | 8.5               | 30          | 2:1         | 15         | 550             | HS2   |
| APM/020-3027 | 0.5-2.0                  | 27        | 1.25                | 6.0               | 30          | 2:1         | 15         | 720             | HS4   |
| APM/020-3036 | 0.5-2.0                  | 36        | 1.50                | 4.5               | 30          | 2:1         | 15         | 800             | HS4   |
| APM/020-3045 | 0.5-2.0                  | 45        | 1.75                | 4.5               | 30          | 2:1         | 15         | 900             | HS4   |
| APM/020-3326 | 0.5-2.0                  | 26        | 1.25                | 8.0               | 33          | 2:1         | 15         | 1200            | HPS6  |
| APM/020-3335 | 0.5-2.0                  | 35        | 1.50                | 5.0               | 33          | 2:1         | 15         | 1250            | HPS6  |
| APM/020-3344 | 0.5-2.0                  | 44        | 1.50                | 5.0               | 33          | 2:1         | 15         | 1300            | HPS6  |
| APM/020-3532 | 0.5-2.0                  | 32        | 1.50                | 6.0               | 35          | 2:1         | 15         | 2800            | HDS8  |
| APM/020-3542 | 0.5-2.0                  | 42        | 2.00                | 5.0               | 35          | 2:1         | 15         | 2850            | HDS8  |
| APM/020-3635 | 0.5-2.0                  | 35        | 1.50                | 5.0               | 36          | 2:1         | 15         | 3000            | HDS8  |
| APM/020-3644 | 0.5-2.0                  | 44        | 2.00                | 5.0               | 36          | 2:1         | 15         | 3050            | HDS8  |
| APO/020-2724 | 1.0-2.0                  | 24        | 1.00                | 5.0               | 27          | 2:1         | 15         | 520             | HC2   |
| APO/020-2733 | 1.0-2.0                  | 33        | 1.25                | 4.5               | 27          | 2:1         | 15         | 580             | HC4   |
| APO/020-3027 | 1.0-2.0                  | 27        | 1.25                | 5.5               | 30          | 2:1         | 15         | 720             | HS4   |
| APO/020-3046 | 1.0-2.0                  | 46        | 1.50                | 5.0               | 30          | 2:1         | 15         | 830             | HS6   |
| APO/020-3327 | 1.0-2.0                  | 27        | 1.25                | 8.0               | 33          | 2:1         | 15         | 1200            | HPS6  |
| APO/020-3336 | 1.0-2.0                  | 36        | 1.50                | 5.0               | 33          | 2:1         | 15         | 1250            | HPS6  |
| APO/020-3345 | 1.0-2.0                  | 45        | 1.50                | 5.0               | 33          | 2:1         | 15         | 1300            | HPS6  |
| APO/020-3535 | 1.0-2.0                  | 35        | 1.50                | 5.5               | 35          | 2:1         | 15         | 2400            | HPS8  |
| APO/020-3545 | 1.0-2.0                  | 45        | 2.00                | 5.0               | 35          | 2:1         | 15         | 2500            | HPS8  |
| APO/020-3735 | 1.0-2.0                  | 35        | 1.50                | 5.0               | 37          | 2:1         | 15         | 3600            | HPS10 |
| APO/020-3745 | 1.0-2.0                  | 45        | 2.00                | 5.0               | 37          | 2:1         | 15         | 3700            | HPS10 |
| APO/020-4040 | 1.0-2.0                  | 40        | 1.50                | 8.0               | 40          | 2:1         | 15         | 7700            | HDS14 |
| APO/020-4050 | 1.0-2.0                  | 50        | 1.50                | 8.0               | 40          | 2:1         | 15         | 7800            | HDS14 |

New Products

\* = Saturated power.