

CATV Amplifier Modules (cont.)

Notes

- 1) provisional data/advance information
- 2) measured at 175.25 MHz (ch 7) with $V_o = 50$ dBmV
- 3) intermodulation distortion = -60 dB (DIN 45004, para. 6.3 : tone), $V_p = V_o$, $f_p = 35.25$ MHz, $V_q = V_o - 6$ dB, $f_q = 42.25$ MHz, $V_r = V_o - 6$ dB, $f_r = 44.25$ MHz, measured at $f_{(p+q-r)} = 33.25$ MHz
- 4) as 3) but with $f_p = 187.25$ MHz, $f_q = 194.25$ MHz, $f_r = 196.25$ MHz, $f_{(p+q-r)} = 185.25$ MHz
- 5) measured at 445.25 MHz (ch H22) with $V_o = 46$ dBmV
- 6) as 3) but with $f_p = 440.25$ MHz, $f_q = 447.25$ MHz, $f_r = 449.25$ MHz, $f_{(p+q-r)} = 438.25$ MHz
- 7) high slope pre-amphasis, for details see data sheet
- 8) 36 channels; measured at 433.25 MHz (ch H20) with $V_o = 46$ dBmV
- 9) measured at 547.25 MHz (ch 27) with $V_o = 44$ dBmV
- 10) as 3) but with $f_p = 540.25$ MHz, $f_q = 547.25$ MHz, $f_r = 549.25$ MHz, $f_{(p+q-r)} = 538.25$ MHz
- 11) measured at 595.25 MHz (ch 35) with $V_o = 44$ dBmV
- 12) as 3) but with $f_p = 590.25$ MHz, $f_q = 597.25$ MHz, $f_r = 599.25$ MHz, $f_{(p+q-r)} = 588.25$ MHz
- 13) measured at 745.25 MHz with $V_o = 44$ dBmV
- 14) as 3) but with $f_p = 740.25$ MHz, $f_q = 747.25$ MHz, $f_r = 749.25$ MHz, $f_{(p+q-r)} = 738.25$ MHz
- 15) as 3) but with $f_p = 341.25$ MHz, $f_q = 348.25$ MHz, $f_r = 350.25$ MHz, $f_{(p+q-r)} = 339.25$ MHz
- 16) as 3) but with $f_p = 851.25$ MHz, $f_q = 858.25$ MHz, $f_r = 860.25$ MHz, $f_{(p+q-r)} = 849.25$ MHz
- 17) frequency range: 470 - 860 MHz, gain measured at 470 MHz
- 18) see specific data sheet for preliminary data

Hybrid Wideband Amplifier Modules

Philips offers a complete range of 2-stage and 3-stage thin-film hybrid amplifier modules for masthead boosters in antenna systems, preamplifiers and trunk amplifiers in MATV systems and VHF/UHF instrumentation amplifiers.

Principal features:

- flat frequency response from 40 to 860 MHz, usable from 10 MHz to 1.2 GHz
- gains from 12 to 28 dB
- 75Ω input and output impedance, unconditionally stable under any source/load mismatch

Recently, a new range of satellite TV amplifiers has been introduced featuring frequency range up to 2050 MHz, 12V supply voltage and gains from 15 to 24 dB.

General-Purpose Hybrid Amplifiers

Type Number	Package Outline	Supply Current (mA)	Stages	Gain (dB)	Noise Figure (dB)	Output at 1 dB Gain Comp (dBm)	Third-order Intercept Point (dBm)	V_o rms ¹⁾ (dBμV)	V_{out} $d_{im} = -60$ dB (DIN45004A1) (dBμV)	max VSWR ²⁾ input output	
12 V supply - "low noise" - CECC, 40 - 860 MHz											
OM2045	fig.88	11.5	1	12	3.6	+5.4	+17.2	99	76	2.0	1.4
OM2050	fig.89	18	2	18	5.2	+6.7	+18.2	100	81	1.5	1.9
OM2052	fig.90	42	2	28	4.5	+13.4	+25.2	107	—	2.2	2.1
OM2060	fig.91	56	3	23	5.4	+13.4	+25.2	107	87	1.4	1.6
OM2061	fig.92	51	3	28	4.4	+13.4	+25.2	107	86	1.5	1.7
OM2063	fig.93	52	3	29	3.6	—	+23.2	105	85	2.3	1.4
OM2064	fig.94	52	3	28	4.0	—	+23.2	105	—	1.3	1.5
OM2070	fig.95	100	3	28	4.8	+20.8	+30.2	112	95	2.3	1.9
12 V supply - "high level", 40 - 860 MHz											
OM2046	fig.96	61	1	10	8.4	—	+32.2	114	—	1.5	1.5
OM2070B	fig.97	100	3	30	4.8	—	+30.2	112	95	2.3	1.9
OM2081 ⁴⁾	fig.98	85	1	10	7.5	—	+33.2	115	105	1.4	1.4

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