

ANALOG UP CONVERTERS (TRANSMITTERS)

AML-TX


The analog transmitters proposed by PM Microwave are devices designed to be used both in analog and digital broadcasting. They are available in both 19" rack for indoor use and waterproof box for outdoor use. The available versions work in the 7 GHz, 10 GHz, and 14 GHz bands, with output powers of 500 mW (+27 dBm) or 1 W (+30 dBm).

The internal oscillators designed by PM Microwave and used in the conversion stages are characterized by high levels of stability and spectral purity, and allow to fully support digital modulations.

TECHNICAL SPECIFICATIONS*

*specifications may be changed in accordance with the technical department

TRANSMITTERS

IF input frequency
Input level
Input impedance
Input return loss

AML-T7

typ. 70 MHz
typ. -10 dBm
50 Ω
> 18 dB

AML-T10

typ. 70 MHz
typ. -10 dBm
50 Ω
> 18 dB

AML-T14

typ. 70 MHz
typ. -10 dBm
50 Ω
> 18 dB

RF output frequency
Output level

6.8 \div 7.2 GHz
+27 dBm / +30 dBm

10.3 \div 10.7 GHz
+27 dBm / +30 dBm

14.0 \div 14.5 GHz
+27 dBm / +30 dBm

RF structure

PLL synthesized
double conversion

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double conversion

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double conversion

Frequency stability L.O.

\pm 5 ppm standard
 \pm 2 ppm HS option
-102 dBc/Hz @ 100 kHz

\pm 5 ppm standard
 \pm 2 ppm HS option
-96 dBc/Hz @ 100 kHz

\pm 2.5 ppm standard
 \pm 1 ppm HS option
-102 dBc/Hz @ 100 kHz

Phase Noise L.O.

L.O. steps

System gain

Spurious emissions

typ. 1 MHz

35 dB

< -60 dBc

typ. 1 MHz

35 dB

< -60 dBc

typ. 1 MHz

35 dB

< -60 dBc

GENERAL

Power supply

110 \div 240 Vac (indoor)
12 \div 15 Vdc (outdoor)

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12 \div 15 Vdc (outdoor)

110 \div 240 Vac (indoor)
12 \div 15 Vdc (outdoor)

Power consumption

Operating temperature

Storage temperature

Storage relative humidity

Dimensions

typ. 20 W

-10 \div +45 $^{\circ}$ C

-20 \div +80 $^{\circ}$ C

10% \div 80%

Rack 19" 1U

(483 \times 45 \times 270 mm,
indoor)

Custom box
(220 \times 96 \times 228 mm,
outdoor)

IP50 (indoor)

IP67 (outdoor)

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Protection degree