

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 ÷ 7.2 GHz
+27 dBm / +30 dBm

10.3 ÷ 10.7 GHz
+27 dBm / +30 dBm

14.0 ÷ 14.5 GHz
+27 dBm / +30 dBm

RF structure

PLL synthesized
double conversion

PLL synthesized
double conversion

PLL synthesized
double conversion

Frequency stability L.O.

± 5 ppm standard
± 2 ppm HS option

± 5 ppm standard
± 2 ppm HS option

± 2.5 ppm standard
± 1 ppm HS option

Phase Noise L.O.

-102 dBc/Hz @ 100 kHz

-96 dBc/Hz @ 100 kHz

-102 dBc/Hz @ 100 kHz

L.O. steps

typ. 1 MHz

typ. 1 MHz

typ. 1 MHz

System gain

35 dB

35 dB

35 dB

Spurious emissions

< -60 dBc

< -60 dBc

< -60 dBc

GENERAL

Power supply

110 ÷ 240 Vac (indoor)
12 ÷ 15 Vdc (outdoor)

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12 ÷ 15 Vdc (outdoor)

110 ÷ 240 Vac (indoor)
12 ÷ 15 Vdc (outdoor)

Power consumption

typ. 20 W

typ. 20 W

typ. 20 W

Operating temperature

-10 ÷ +45 °C

-10 ÷ +45 °C

-10 ÷ +45 °C

Storage temperature

-20 ÷ +80 °C

-20 ÷ +80 °C

-20 ÷ +80 °C

Storage relative humidity

10% ÷ 80%

10% ÷ 80%

10% ÷ 80%

Dimensions

Rack 19" 1U
(483 × 45 × 270 mm,
indoor)

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indoor)

Custom box
(220 × 96 × 228 mm,
outdoor)

Custom box
(220 × 96 × 228 mm,
outdoor)

Custom box
(220 × 96 × 228 mm,
outdoor)

Protection degree

IP50 (indoor)
IP67 (outdoor)

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IP50 (indoor)
IP67 (outdoor)