

# Long Range & Low Power 2.4 GHz Multichannel Transceiver

## RTX-24EM-HP-AI/V

P.N. 650201516G

### DESCRIZIONE

Ricetrasmittitore RF a bassa potenza da 1,5 kbps a 72 kbps a bassa tensione a 2,4 GHz in banda ISM ideale per applicazioni wireless a batteria.

I moduli RTX-24EM-HP incorpora il dispositivo Microelectronic EM9209 Radio SOC.

Inoltre incorpora un amplificatore di potenza (PA) e un Low Noise Amplifier (LNA) che permettono di aumentare la potenza di uscita RF e la sensibilità rispetto ai moduli Aurel RTX-24EM.

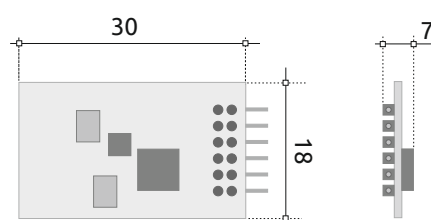
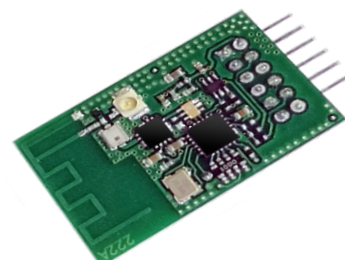
### DESCRIPTION

The RTX-24EM-HP is a 1.5 kbps to 72 kbps low-power, low-voltage 2.4 GHz ISM band RF transceiver module ideal for battery operated wireless applications such as wireless sensors and control.

The RTX-24EM-HP modules embed the Microelectronic EM9209 Radio SOC device.

Furthermore it embeds a power amplifier (PA) and a Low Noise Amplifier (LNA) that allow to increase the RF output power and the sensitivity compared to the Aurel RTX-24EM modules.

### COMPONENT SIDE



### PIN-OUT

- |           |            |
|-----------|------------|
| 1) GND    | 7) SCK     |
| 2) Vcc    | 8) MISO    |
| 3) IRQ    | 9) GND     |
| 4) nRESET | 10) ENABLE |
| 5) MOSI   | 11) NC     |
| 6) SS     | 12) NC     |

Information subject to change without notice

AUREL CODE	TECHNICAL NAME REFERENCE	DESCRIPTION
650201515G	AUREL RTX-24EM-HP-AI/H	Integrated PIFA antenna, horizontal mounting
650201516G	AUREL RTX-24EM-HP-AI/V	Integrated PIFA antenna, vertical mounting
650201517G	AUREL RTX-24EM-HP-AE/H	UFL connector for external antenna, horizontal mounting
650201518G	AUREL RTX-24EM-HP-AE/V	UFL connector for external antenna, vertical mounting

### TECHNICAL SPECIFICATION

Ta = 25 °C

CARATTERISTICHE	MIN	TYP	MAX	UNIT
Power supply	2	3	3.6	Vdc
Frequency	2.4		2.484	GHz
Supply current (Rx mode)		16		mA
Supply current (Tx mode @18dBm)		100		mA
Supply current (Tx mode @10dBm)		40		mA
Supply current (Power Down mode)		2		µA
Modulation		FSK		
RX sensitivity 1.5 kbps		-119		dBm
RX sensitivity 72 kbps		-101		dBm
ERP RF Power			+18	dBm
RF channels		20		
Operating temperature	-40		+85	°C

