

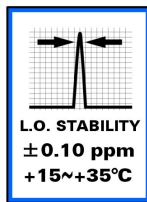
AEMME TOP PERFORMANCE 70 MHz RADIOTRANSVERTER FK-855 G10 / G30



**HIGH
LINEARITY
PUSH
PULL
28 W RMS
RF POWER
AMPLIFIER**



**HIGH
LINEARITY
PUSH
PULL
12 W RMS
RF POWER
AMPLIFIER**



The FK-855 G10 and G30 FOUR METERS are the top-performance radiotransverters* for 70 MHz band designed for use with all high-class HF transceivers with a high

dynamic range for the receiving section. They are always reliable and ready for use in three simple steps. The front-end built with an MICROWAVE POWER GaAs-FET MGF1801B - 31 Mitsubishi* offers an IP3 of +36 dBm and a maximum noise level of 0,25 dB @ 71MHz. The double-balanced mixer used is the TAK 1-H Mini-Circuits* with an IP3 of +29 dBm, directly following an IF amplifier stage with a very high dynamic range (IP3 +41 dBm) and low noise level, made up of four JFET at high IDSS to complete the receiving section. The RX gain is variable with precise preset levels from 21 dB to 27 dB to obtain maximum performance regarding sensitivity and resistance to the intermodulation with any type of HF receiver (26 / 28 / 50 MHz). Moreover it is possible to power an external RX amplifier by the coaxial antenna's cable. There is no interference coming from the nearest FM broadcasting band thanks to the high-Q multi-polar notch filter, present at the input of the receiving section. The local oscillator with a high stability and low level of phase noise is controlled by temperature for precise operations in SSB or in digital mode.

The input PTT IN (recommended for digital emissions) and the VOX RF control the radiotransverter in transmission phase, working on the activation of various circuits with electronic switches while the antenna switch with the classic electro-mechanical relay system allows one to fully enjoy the great dynamic range the receiving section is capable of. The maximum RF power that is continually sustainable at the input on the FK-855 G10 and G30 is 250 W RMS, twenty-five times as much as that of the RF input advised at 10 W RMS. Moreover, the internal dummy load can support, without damage an RF power peak of 2.500 W to ensure that at the RF final amplifier stage of the transceiver, in the case of operational accidents or unforeseen malfunction, it can supply for some time, the maximum power allowed to it.

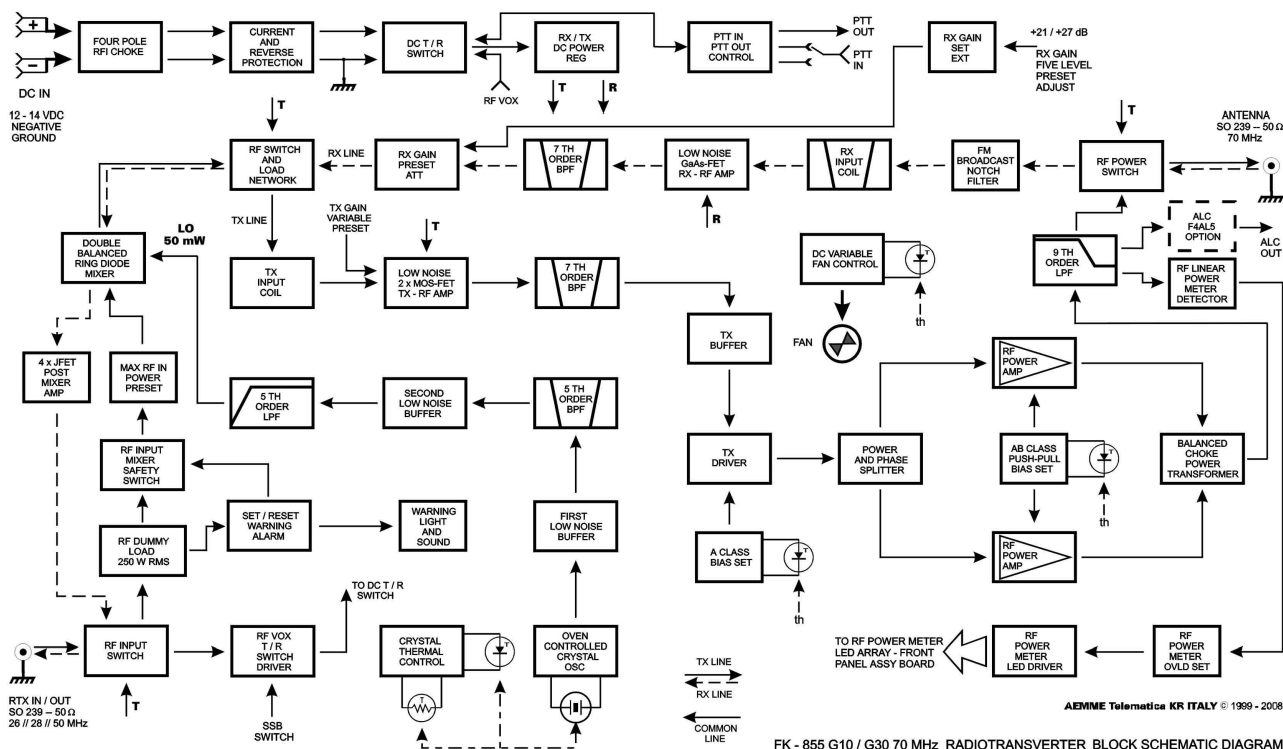
The RF power amplifier of the FK-855 G10 has an output of 12 W RMS while the model FK-855 G30 supplies 30 W RMS at the antenna jack, both using a pair of RF POWER TRANSISTOR Mitsubishi* in push-pull configuration with a double-magnetic circuit for a superior-linearity.

The RF power output can be seen on the efficient bar-graph LED display with the extra-indication of OVERLOAD.

ORDER CODE	ORDER CODE	CONVERSION
855G10F26	855G30F26	26 / 70 MHz
855G10F28	855G30F28	28 / 70 MHz
855G10F50	855G30F50	50 / 70 MHz

RADIOTRANSVERTER* AEMME FK-855 G10 / G30 – 70 MHz SPECIFICATIONS

Frequency Conversion:	26 / 70 MHz – 28 / 70 MHz – 50 / 70 MHz
Emission Modes:	CW, SSB, FM, Packet F1 / F2, AFSK, AM
Input / Output Impedance:	50 Ω unbalanced – coax jack UHF SO239
Operating Temperature Range:	0°C - +50°C / Papst* fan with temperature control
Frequency Stability:	+15°C ~ +35°C better than ±0,1 ppm / 3 min. @ 25°C warm-up
Input Voltage / Protection:	13,8 VDC ±10 % / polarity mismatch – high current – RFI filter
Power Consumption:	RX 0,35 A / TX 3,6 A @ 12 W RMS / TX 6,1 A @ 28 W RMS
Dimensions / Weight:	244 (W) x 49 (H) x 220 (D) mm / FK-855 G10 Kg 1,6 – FK-855 G30 Kg 1,8
TRANSMITTING SECTION	
Power Input:	internal preset 8~10 W RMS / 18~20 W RMS / 100 mW RMS on demand
Power to dummy load:	250 W RMS continuous / 2.500 W peak 5 ms max
Input Protection:	threshold level 25 W RMS ±1 W
Signaling Protection:	acoustic with level +80 dB @ 6,5 KHz / optical LED WARNING
TX / RX Switch:	VOX RF / PTT IN positive or grounded – internal preset / PTT OUT output
Attack Time VOX RF – TX ON:	≤22 ms
Release Time VOX RF – RX ON:	≤35 ms switch SSB OFF / 1,2 s switch SSB ON – internal preset
SWR Input:	1,1 : 1 typ. – 1,3 : 1 max
Frequency Range:	70 MHz ~ 72 MHz ±1 dB
Power Output:	FK-855 G10 – 12 W RMS @ 13,8 VDC / FK-855 G30 – 28 W RMS @ 13,8 VDC
Harmonic Radiation:	better than -60 dBc
RECEIVING SECTION	
RX Front-End Gain:	+27 dB max – GaAs-FET MGF1801B – 31 Mitsubishi*
Noise:	0,25 dB max @ 71 MHz
Overall Gain:	+21 dB ~ +27 dB external setting five level preset
Double-balanced Mixer:	TAK 1-H Mini-Circuits* IP3 +29 dBm
Intermediate Frequency Rejection:	85 dB or better
Image Frequency Rejection:	80 dB or better
FM Broadcast Frequency Rejection:	95 dB or better
Frequency Range:	70 MHz ~ 72 MHz ±1 dB



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OPTION **1G70** – ALC MODULE F4AL5
 OPTION **2G70** – N FEMALE ANTENNA JACK

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