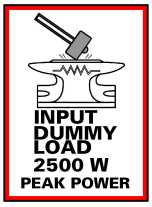
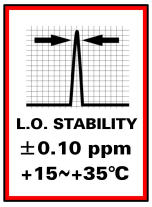
AEMME TOP PERFORMANCE 50 MHz RADIOTRANSVERTER FK-855 G10 / G30

HIGH LINEARITY PUSH PULL 12 W RMS RF POWER AMPLIFIER

HIGH LINEARITY PUSH PULL 30 W RMS RF POWER AMPLIFIER



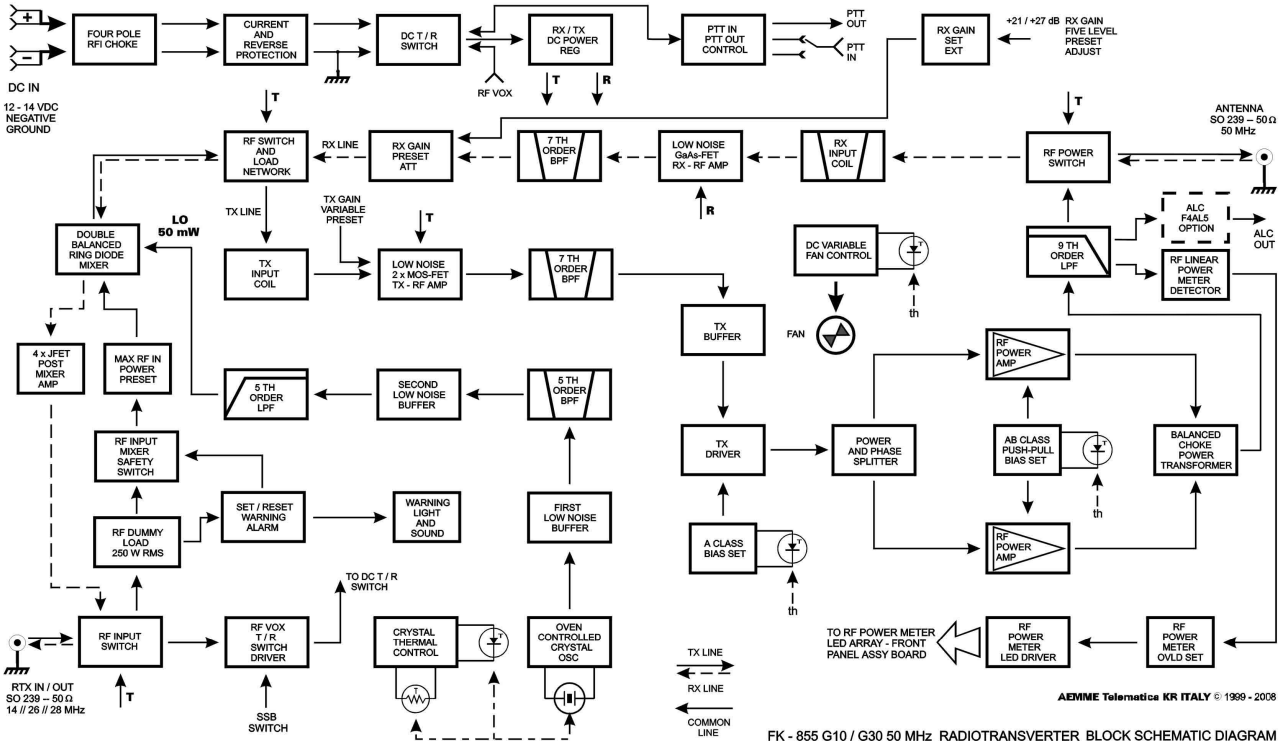


The FK-855 G10 and G30 SIX METERS are the top-performance radiotransverters* for 50 MHz band designed for use with all high-class HF transceivers with a high dynamic range for the receiving section.
They are always reliable and ready for use in three simple steps. The front-end built with an MICROWAVE POWER GaAs-FET MGF1801B - 31 Mitsubishi* offers an IP3 of +36 dBm and a maximum noise level of 0,25 dB @ 51MHz.
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 five preset levels from +21 dB to +27 dB to obtain high-performance regarding sensitivity and resistance to the intermodulation with any type of HF receiver, moreover, it is possible to power an external RX preamplifier through the antenna's coaxial cable.
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.
To guarantee the receiving high-dynamic performance, the TX / RX antenna switch is designed using the classic low-loss antenna relay system while the internal service voltages are entrusted to efficient electronic switches. The direct PTT IN and VOX RF links along with the SSB switch on the front panel facilitate control.
The maximum continually sustainable RF power input on the FK-855 G10 and G30 is 250 W RMS, twenty-five times as much as that of the RF power 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 protection to the RF final amplifier stage of the transceiver unconditionally, making it safe from set-up errors or anomalous transmitting conditions.
The RF power amplifier of the FK-855 G10 has an output of 12 W RMS while the model FK-855 G30 provides 30 W RMS at the antenna jack, both using a matched-pair of RF POWER TRANSISTOR Mitsubishi* in push-pull configuration with a double-magnetic circuit for a superior-linearity.

ORDER CODE	ORDER CODE	CONVERSION
855G10S14	**855G30S14**	14 / 50 MHz
855G10S26	**855G30S26**	26 / 50 MHz
855G10S28	**855G30S28**	28 / 50 MHz

RADIOTRANSVERTER* AEMME FK-855 G10 / G30 – 50 MHz SPECIFICATIONS

Frequency Conversion:	14 / 50 MHz – 26 / 50 MHz – 28 / 50 MHz
Emission Modes:	CW, SSB, FM, Packet F1 / F2, AFSK, AM
Input / Output Impedance:	50 Ω unbalanced – coax jack UHF SO239
Operating Temperature Range:	0ºC - +50ºC / Papst* fan with temperature control
Frequency Stability:	+15ºC ~ +35ºC better than ±0,1 ppm / 3 min. @ 25ºC warm-up
Input Voltage / Protection:	13,8 VDC ±10 % / polarity mismatch – high current – RFI filter
Power Consumption:	RX 0,35 A / TX 3,7 A @ 12 W RMS / TX 6,5 A @ 30 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:	50 MHz ~ 52 MHz ±1 dB
Power Output:	FK-855 G10 – 12 W RMS @ 13,8 VDC / FK-855 G30 – 30 W RMS @ 13,8 VDC
Harmonic Radiation:	better than -60 dBc
RECEIVING SECTION	
RX Front-End Gain:	+27,5 dB max GaAs-FET MGF1801B – 31 Mitsubishi*
Noise:	0,25 dB max @ 51 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
Frequency Range:	50 MHz ~ 52 MHz ±1 dB



FK - 855 G10 / G30 50 MHz RADIOTRANSVERTER BLOCK SCHEMATIC DIAGRAM

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OPTION **1G50** - ALC MODULE F4AL5
OPTION **2G50** - N FEMALE ANTENNA JACK

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