## AEMME HIGH PERFORMANCE 144 MHz **RADIOTRANSVERTER FK-855 B15**





600 W

 $\pm 0.25$  ppm

transmitting on two-meters band with the sophisticated operative possibilities of a modern HF transceiver. Reliable and ready to use in three simple steps it offers high-performance at an affordable price.

The front-end built with an indestructible DUAL-GATE MOS-FET Vishay Telefunken\*, offers a typical noise level of 0,8 dB @ 145MHz.

The double-balanced mixer used is the approved SBL 1-1 Mini-Circuits\* with an IP3 of +16 dBm along with an high dynamic and low noise level amplifier stage, made up from four JFET at high IDSS, to complete the receiving section.

The RX gain is continually variable from 20 dB to 26 dB to easily bring together the maximum sensitivity and an adequate resistance to the intermodulation on any type of HF receiver (14 / 26 / 28 / 50 MHz).

The high stability local oscillator ±0,25 ppm with a low phase noise, typical of crystal oscillators, is thermically controlled by a high precision sensor and an integrated heater capable of bringing the conversion crystal to the exercise temperature in less than five minutes.

The TX / RX solid state switch renders it ideal for digital emissions, special PIN diodes capable of working at an RF power up to 125 W RMS replace the classic antenna relay system.

If you don't wish to transmit with the radiotransverter with a direct link to the PTT IN, the VOX RF that controls its RF input reacts automatically the moment the HF transceiver goes into transmission.

If the chosen emission mode is the SSB, the relative switch on the front panel will adapt the time constant value to natural pauses in speech.

The maximum RF power continually sustainable at the RF IN jack of the FK-855 B15 is 30 W RMS, three 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 600 W to ensure protection at the final stage of the transceiver.

The FK-855 B15 provides up to 15 W RMS of RF power output and makes use of a RF POWER MODULE MOS-FET Mitsubishi\* with protection against high SWR, and ALC circuitry is always active to provide excellent linearity with all types of possible modulation.

The temperature of the MOS-FET RF power module is controlled by an appropriate electronic sensor that controls the speed of a silent Papst\* fan in the rear panel of the radiotransverter, therefore allowing for absolute stability of performance in the most serious working conditions.

ORDER CODE	CONVERSION
855B15T14	14 / 144 MHz
855B15T26	26 / 144 MHz
855B15T28	28 / 144 MHz
855B15T50	50 / 144 MHz

SOLID

STATE

HREE

15 W RMS RF POWER

FAN

## RADIOTRANSVERTER\* AEMME FK-855 B15 - 144 MHz SPECIFICATIONS

Frequency Conversion: Emission Modes: Input / Output Impedance: **Operating Temperature Range:** Frequency Stability: Input Voltage / Protection: Power Consumption: Cabinet: **Dimensions / Weight:** TRANSMITTING SECTION Power Input: Power to dummy load: Input Protection: Signaling Protection: TX / RX Switch: Attack Time VOX RF - TX ON: Release Time VOX RF - RX ON: SWR Input: Frequency Range: Power Output: SWR Output Protection: Harmonic Radiation: **RECEIVING SECTION RX Front-End Gain:** Noise: **Overall Gain:** Double-balanced Mixer: Intermediate Frequency Rejection: Image Frequency Rejection: Frequency Range:

14 / 144 MHz – 26 / 144 MHz – 28 / 144 MHz – 50 / 144 MHz CW, SSB, FM, Packet F1 / F2, AFSK, AM 50  $\Omega$  unbalanced – coax jack UHF SO239 0°C - +50°C +15°C ~ +35°C better than ±0,25 ppm / 5 min. @ 25°C warm-up 13,8 VDC ±10 % / polarity mismatch – high current – RFI filter RX 0,38 A / TX 3,2 A @ 15 W RMS black anodized aluminum – front side finish polycarbonate 244 (W) x 49 (H) x 220 (D) mm / FK-855 B15 Kg 1,35

internal preset 8~10 W RMS / 3~5 W RMS / 100 mW RMS on demand 30 W RMS continuous / 600 W peak 5 ms max threshold level 18 W RMS  $\pm$ 1 W acoustic, with level +80 dB @ 6,5 KHz / optical LED WARNING VOX RF / PTT IN positive or grounded – internal preset / PTT OUT output  $\leq$ 0,6 ms  $\leq$ 3 ms switch SSB OFF / 1,2 s switch SSB ON – internal preset 1,1 : 1 typ. – 1,3 : 1 max 144 MHz ~ 146 MHz  $\pm$ 1 dB FK-855 B15 – 15 W RMS @ 13,8 VDC SWR 3,5 : 1 max better than - 60 dBc

+28 dB max – MOS-FET Dual-Gate BF988 Vishay Telefunken\* 0,8 dB typ. @ 145 MHz +20 dB ~ +26 dB external fine setting SBL1-1 Mini-Circuits\* IP3 +16 dBm 85 dB or better 80 dB or better 144 MHz ~ 146 MHz ±1 dB



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OPTION **1B144** - ALC MODULE F4AL144 OPTION **2B144** - N FEMALE ANTENNA JACK OPTION **3B144** - ANTENNA BY-PASS

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