

KE / KV series

TECHNICAL CHARACTERISTICS

STLs System specification

Frequency range:	
48-72 MHz	(KE/1B, KV/1B)
72-108 MHz	(KE/FM, KV/FM)
160-300 MHz	(KE/3B, KV/3B)
300-512 MHz	(KE/4B, KV/4B)
512-830 MHz	(KE/5B, KV/5B)
830-1020 MHz	(KE/G, KV/G)
1.4-2.7 GHz	(KE/2G, KV/2G)
Frequency response	± 0.1 dB typ. from 16 Hz to 53 kHz, 0.5 dB to 100 kHz
Stereo separation	58 dB or better from 15 Hz to 15 kHz
Stereo cross talk	55 dB or better
Signal to Noise Ratio (mono)	72 dB typ. with 75 kHz dev. and 400 Hz mod.
Signal to Noise Ratio (stereo)	73 dB typ. with 75 kHz dev. de-emphasized
THD (stereo)	< 0.1 % (0.06 at 1 kHz)
THD (mono)	< 0.1 % (0.05 at 1 kHz)
IMD (two tone ΔF= 1 kHz)	D2≤0.09%, D3≤0.06% (15 Hz to 15 kHz)
Transmitters specifications:	
Power outputs (continuously variable from 0):	
KE/1B	15 W
KE/FM	25 W
KE/3B	15 W
KE/4B	15 W
KE/5B	5 W
KE/G	8 W (25 W on request)
KE/2G	2 W
KE5/2G	5 W (10 W, 25 W on request)
Input impedance	50 Ω
Output connector	N/female
Modulation	FM
Pre-emphasis	50 / 75 μs
Spurious and harmonic	below FCC and CCIR requirements
Synchronous AM S/N Ratio	<-60 dBc with ΔF ±75 kHz
Asynchronous AM S/N Ratio	<-70 dBc respect to 100% AM mod.
Composite S/N Ratio	78 dB typ. with 75 kHz dev.
Composite THD	0.08 % typ.
Composite frequency response	± 0.15 dB from 15 Hz to 147 KHz
Stereo separation	60 dB or better from 15 Hz to 15 kHz
Capability	1 mono/stereo program, up to 3 SCA (optional)
Metering	output level, peak modulation, diagnostic functions
Frequency setting	internal dip-switches (standard) or front panel selector (optional)
Operating temperature	-20°C to +45°C
DC input power (optional)	12.5 VDC (3A for 2W models, 4A for 5W, 5A for 8W, 6A for 15/25W)
AC input voltage	120 or 220/240 VAC, 50/60 Hz, 96 VA for 25 W models.
Dimensions	depth 483 mm (19") x 2 U (standard rack unit)
Net weight	9.8 kg

Receivers specifications:

KV/1B, KV/FM, KV/3B, KV/4B, KV/5B, KV/G, KV/2G	
Amplitude response	±0.1 dB from 15 Hz to 53 kHz, ± 0.5 dB from 53 kHz to 100 kHz
Monoaural Sensitivity	8 μV for S/N 52 dB, 16 μV/60 dB, 200 μV/70 dB, 1 mV/78 dB
Composite Sensitivity	8 μV for S/N 40 dB, 16 μV/42 dB, 150 μV/60 dB, 1 mV/72 dB
Noise figure	(RFin = 2mV) < 8 KTo
Selectivity	± 160 kHz at -3 dB IF BW, ± 500 kHz at -78 dB IF BW
Metering	RF input level, peak modulation
Frequency setting	internal dip-switches (standard) or front panel selector (optional)
RF input	N/female, 50 ohm
Image rejection	> 68 dB
Squelch threshold	adjustable from 8 μV
Outputs	composite, monoaural, IF 10.7 MHz
Operating temperature	-10°C to +45°C
DC input power (optional)	12.5 VDC, 2.5 A
AC input voltage	120 or 220/240 VAC, 50/60 Hz, 34 VA
Dimensions:	depth 483 mm (19") x 2 U (standard rack unit)
Net weight	8.6 – 9.5 kg
Options on request:	
/VDC	24 VDC / Battery operation
/C	Front panel frequency selector

Features and specifications subject to change without notice.

COMPOSITE AURAL STLs

KE, KV series



- **Synthesized** from 48 to 1020 MHz (/1B, /FM, /3B, /4B, /5B, /GHz models) and from 1.2 to 2.7 GHz (/2G models). The transmitted and received frequency can be easily set by the internal dip - switches or by the front panel numerical selector (/C option).
- **Excellent stereo** separation. A built-in group delay and amplitude precorrector guarantees a very low phase distortion and a great stereo separation in the whole 15 kHz band.
- **Suitable for digital audio.** The subsonic overmodulation and the low frequency phase distortion are controlled by a feedback circuit in order to exalt the audio quality of the latest digital systems.
- **Low THD distortion:** the THD value with stereo or mono demodulated and deemphasized signals is negligible.
- **Flat frequency response:** due to the latest generation technology and the components precision the flatness of frequency response is absolute.
- **Low noise:** the excellent signal to noise ratio either in mono or in stereo allows the use of this STLs in multi hops networks without decreasing the audio quality.
- **High sensitivity:** it allows to reduce the STL's antennas investment.
- **Great RF immunity:** allows to operate in most hostile RF environments.
- **High adjacent channel rejection:** obtained thanks to the excellent mechanical shielding and the precision of RF filtering.
- **High frequency stability** with the internal temperature compensated crystal reference.
- **Full metering:** complete diagnostic and measurement front panel displays are available.
- **Battery operations.** VDC option is available for battery or solar panels operations.
- **Meets or exceeds** all FCC and CCIR requirements.

