



# KE / KV Series Specifications



*The KE and KV analog STL Series are the best audio quality links for contribution and/or distribution broadcasting networks.*

### **Synthesized**

Synthesized from 48 to 1020 MHz (/1B, /FM, /3B, /4B, /5B, /GHz models). The transmitted and received frequency can be easily set by internal dip - switches.

### **Excellent stereo separation**

A built-in group delay and amplitude pre-corrector guarantees a very low phase distortion and a great stereo separation in the whole audio band.

### **Suitable for digital audio**

The subsonic over-modulation and the low frequency phase distortion are controlled by a feedback circuit in order to exalt the audio quality of the latest digital studio equipment.

### **Low THD distortion**

The THD value with stereo or mono demodulated signals is negligible.

### **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 channel filtering.

### High frequency stability

High frequency stability with the internal temperature compensated crystal reference.

### Full metering

Complete diagnostic and measurement front panel displays are available.

### Meets or exceeds

Meets or exceeds all FCC and CCIR requirements.

## TECHNICAL SPECIFICATIONS

### GENERAL SPECIFICATIONS

Frequency Range:	
• KE/1B, KV/1B	48-80 MHz
• KE/FM, KV/FM	80-108 MHz
• KE/3B, KV/3B	160-300 MHz
• KE/4B, KV/4B	300-512 MHz
• KE/5B, KV/5B	512-830 MHz
• KE/G, KV/G	830-1020 MHz
Composite Frequency response	± 0.1 dB typ. from 16 Hz to 53 kHz, 0.5 dB up to 100 kHz
Mono Frequency response	±0.5 dB from 20 Hz to 15 kHz
Stereo separation	≥ 58 dB (from 15 Hz to 15 kHz)
Stereo cross talk	≥ 55 dB
Signal to Noise Ratio (mono) (-50 dBm received)	≥ 72 dB with 75 kHz dev. deemphasized
Signal to Noise Ratio (stereo) (-50 dBm received)	≥ 68 dB with 75 kHz dev. deemphasized
THD (stereo)	< 0.1 %
THD (mono)	< 0.1 %
IMD (two tone ΔF= 1 kHz)	D2 ≤ 0.09%, D3 ≤ 0.06% (from 15 Hz to 15 kHz)

### TRANSMITTERS SPECIFICATIONS

Power outputs (continuously adjustable from 0 to nominal power):	
• KE/1B	15 W
• KE/FM	30 W
• KE/3B	15 W
• KE/4B	15 W
• KE/5B	15 W
• KE/G	8 W (25 W on request)
Input connectors	XLR, 600 Ω for mono or stereo (Left&Right) BNC, 10kΩ for MPX
Output connector	N female, 50 Ω
Modulation	FM
Pre-emphasis	0 / 50 / 75 μs
Spurious and harmonic suppression	Exceeds CCIR/FCC requirements
Synchronous AM S/N Ratio	≤ -60 dBc with dev. ±75 kHz
Asynchronous AM S/N Ratio	≤ -70 dBc respect to 100% AM mod.
Capability	1 mono/stereo program, up to 3 SCA (optional)
Metering	output level, peak modulation, diagnostic functions
Frequency setting	internal dip-switches
Dimensions	depth 483 mm (19") x 2 U (standard rack unit)

## RECEIVERS SPECIFICATIONS

Monoaural Sensitivity	8 $\mu$ V for S/N 52 dB, 16 $\mu$ V/60 dB, 200 $\mu$ V/70 dB, 1 mV/78 dB
Composite Sensitivity	8 $\mu$ V for S/N 40 dB, 16 $\mu$ V/42 dB, 150 $\mu$ V/60 dB, 1 mV/72 dB
Noise figure	(RF in = 2mV) < 8 KTo
Selectivity	$\pm$ 160 kHz at -3 dB IF BW, $\pm$ 500 kHz at -78 dB IF BW
Metering	RF input level, peak modulation
Frequency setting	internal dip-switches
RF input	N female, 50 $\Omega$
Image rejection	> 68 dB
Squelch threshold	adjustable from 8 $\mu$ V
Outputs	composite, monoaural, IF 10.7 MHz
Dimensions	depth 483 mm (19") x 2 U (standard rack unit)

## AC POWER REQUIREMENTS

AC input voltage	115 / 230 VAC $\pm$ 15%, single phase.
AC supply frequency	50 Hz or 60 Hz, $\pm$ 5%

## ENVIRONMENT

Cooling	Forced air
Service	Continuous 24/24h
Operating temperature	-5°C to +45°C Derate 3°C per 500mt above 2000mt asl
Relative humidity	Up to 95%

## AVAILABLE OPTIONS

/S	High performance built-in Digital Stereo Coder for KE transmitter
/SD	High performance built-in Digital Stereo Decoder for KV receiver
/R	Remote control interface
/VDC-12	12 VDC power supply option

All specifications are subject to change without notice.

## Contact Information

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