

### FC 30 Technical Specifications (D) : Technical Specifications

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#### PERFORMANCE SPECIFICATIONS

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**Subcarrier Frequency:**

67 kHz (39 to 95 kHz to order)

**Subcarrier Frequency Stability:**

$\pm 0.5\%$  (330 Hz @ 67 kHz, 0° - 50° C)

**Subcarrier Harmonic Content:**

Less than 0.3%

**Subcarrier Output Level:**

0.5 to 4.0 V, into 600 Ohm peak-to-peak; adjustable

**Subcarrier Output Impedance:**

600 Ohm unbalanced, resistive

**Subcarrier Envelope Decay:**

Greater than 100  $\mu$ sec from 90% to 10% sub-carrier levels

**Modulation Capability:**

$\pm 20\%$  of subcarrier frequency

**FM Noise:**

72 dB below +6 kHz deviation @ 400 Hz (150  $\mu$ sec de-emphasis)

**Audio Input Impedance:**

600 Ohm balanced, resistive

**Data Input Impedance:**

75 Ohm unbalanced resistive, DC coupled

**Input Levels:****Audio:**

Adjustable, +10 dBm to -10 dBm for  $\pm 6$  kHz deviation @ 400 Hz

**Data:**

Adjustable, 1.0 to 4.0 V p-p for  $\pm 6$  kHz deviation (DC coupled)

**Preemphasis:****Audio:**

150  $\mu$ sec standard (75  $\mu$ sec with internal jumper)

**Data:**

No pre-emphasis

**Frequency Response:****Audio:**

$\pm 0.5$  dB 10-10,000 Hz exclusive of audio low-pass filter

**Data:**

$\pm 0.5$  dB, DC-10,000 Hz

**Audio Low-Pass Filter:**

Sixth order, -3 dB @ 4.3 kHz, standard (resistor changes for other values)

**Data Low-Pass Filter:**

Same as FM filter or may be bypassed

**Total Harmonic Distortion:**

Less than 0.5% throughout AF pass band

**Crosstalk SCA To Stereo:**

-60 dB or better below 100% modulation of left or right, 75  $\mu$ sec de-emphasis, using FX50 Exciter

**Crosstalk Stereo To SCA:**

-60 dB or better below  $\pm 6$  kHz deviation of SCA using 150  $\mu$ sec de-emphasis and FS30 Stereo Generator

**Intermodulation Distortion:**

Less than 0.5%, 60 Hz / 7 kHz, 1:1 ratio (audio preemphasis and LPF bypassed)

**Auto Muting Level:**

Adjustable from 10 to 30 dB below program level

# Broadcast Electronics

## Technical Specifications

**Auto Muting Delay:**

Adjustable 0.5 to 10.0 seconds

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**POWER****AC Power Requirements:**

97-133 or 194-266 Vac, 50/60 Hz, 7 watts

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**ENVIRONMENTAL****Operating Temperature Range:**

0° to 50° C

**Maximum Altitude:**

15,000 feet (4,572 M)

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**MECHANICAL/PHYSICAL****Dimensions:**

19"W x 1.75"H x 9"D (48.3 x 4.5 x 22.9 cm)

**Net Weight:**

4.5 lbs. (2 kg)

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**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

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