

SCIENTIFIC CONVERSION, INC.

SuperShielded[™] Digital Audio Transformer SC947-02LF *Ultimate Performance, 1:1 ratio for AES/EBU balanced 110 Ω*

Our latest model for Broadcast and Pro Audio applications offers the best performance ever in a 1:1 ratio transformer with optimal bandwidth and low pulse aberration to cover the entire sampling rate range from 32 kHz to 192 kHz for all digital audio interfaces: AES/EBU 110 Ω , SP/DIF or AES3id 75 Ω . This part has an interwinding shield to reduce interwinding capacitance to 0.5 pF and to increase high frequency common mode noise rejection. It outperforms all other Digital Audio transformers by 12..36 db CMRR!

Scientific Conversion has developed this advanced new surface mount transformer specifically for best interface and lowest jitter Digital Audio applications; i.e. DVD, studio and mastering converters, low jitter receivers, high-end consumer, satellite uplinks, etc.

SC947-02LF provides a 1:1 ratio for interfacing transmitters and receivers in either balanced or unbalanced applications. Extremely wide bandwidth, low aberration, lowest capacitance and low leakage inductance characterize this unique device. SC947-02LF is packaged in a low profile SMD pattern 5.6 mm x 9.5 mm x 8.2 mm. The PCB footprint is 9.5 mm x 11 mm. The SC947-02LF is designed for use with all popular AES/EBU transmitters, receivers, transceivers, and DVD ICs, e.g. AKM, Cirrus Logic, Motorola, TI/Burr-Brown, Yamaha.

Specifications include an astounding 3 nS rise-time! Bandwidth extends from 15 kHz to 115 MHz. This new shielded part has a "Super" low capacitance of 0.5 pF, which reduces radiated and received noise and provides decreased jitter and better audio quality in high interference environments. The low capacitance provides increased reduction of emitted high frequency common mode noise, which improves your product's EMI/FCC compliance. At 10 MHz, the common-mode rejection ratio is 50 dB! SC947-02LF is optimized for use in 110 Ω environments, however it works well over the entire 75 - 110 Ω impedance range. Please use pin 6 and pin 7 for optimum shielding.

All Scientific Conversion transformers are now RoHS compliant lead free, part number SC947-02LF. These exclusive products are designed by digital audio and magnetics experts, and are handmade in America. For further technical information, engineering application or sales information, please contact Scientific Conversion directly.

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Ultimate Performance, 1:1 ratio for AES/EBU balanced 110 Ω

SPECIFICATIONS

RATIO	1:1
INDUCTANCE, PRIMARY	350 uH typ
INDUCTANCE, SECONDARY	350 uH typ
INDUCTANCE, LEAKAGE	450 nH typ
INTERWINDING CAPACITANCE SHIELD FLOATING	3 pF typ
INTERWINDING CAPACITANCE SHIELD GROUNDED	0.5 pF typ
E-T PRODUCT	25 V-uS typ
RESISTANCE PRI / SEC	0.45 / 0.50 Ω typ
BANDWIDTH (3dB) in 110 Ω environment	15 KHz - 115 MHz typ
VOLTAGE ISOLATION P-S	500 VDC
RISETIME (110 Ω)	3 nS typ
PHYSICAL DIMENSIONS	
HEIGHT	5.6 mm max
WIDTH	9.5 mm max
BODY LENGTH	8.2 mm max
PCB FOOTPRINT	11.2 mm max

