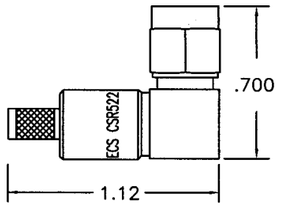
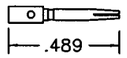
FERRULE

BODY



DIELECTRIC STIFFENER

CONTACT



△3

SPECIFICATIONS

ELECTRICAL

IMPEDANCE: 50 OHMS NOMINAL
FREQUENCY RANGE: 0–18 GHz
VSWR: 1.05 ± .05 MAXIMUM
INSERTION LOSS: .03 √FGHz dB MAX.
WORKING VOLTAGE: 500 VRMS @ SEA LEVEL
DIELECTRIC WITHSTANDING: 1500 VRMS @ SEA LEVEL
INSULATION RESISTANCE: 5000 MEGOHMS MINIMUM @ 500 VOLTS DC

MECHANICAL

CONNECTOR INTERFACE DIMENSION PER MIL–STD–348A FIGURE 310–1
TERMINATION STYLE: INNER CONTACT–SOLDER OR CRIMP
OUTER CONTACT–FERRULE CRIMP
CABLE RETENTION: 20 LBS

ENVIRONMENTAL

TEMPERATURE RATING: –65° TO +165° C
VIBRATION: MIL–STD–202, METHOD 204, COND. D
SHOCK: MIL–STD–202, METHOD 213, COND. I
THERMAL SHOCK: MIL–STD–202, METHOD 107, COND. B
CORROSION: MIL–STD–202, METHOD 101, COND. B
MOISTURE RESISTANCE: MIL–STD–202, METHOD 106

MATERIALS

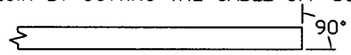
BODY, OUTER CONTACT: STAINLESS STEEL PER QQ–S–763
FERRULE: ANNEALED BRASS PER ASTM B16
CENTER CONTACT: BRASS PER ASTM B16
CABLE CONTACT: BERYLLIUM COPPER PER ASTM B196
DIELECTRIC: TEFLON PER ASTM D1710
GASKET: SILICON RUBBER PER ZZ–R–765

FINISHES

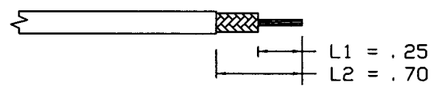
BODY: STAINLESS STEEL PER QQ–S–763
CONTACTS: GOLD PER MIL–G–45204

INSTALLATION INSTRUCTIONS

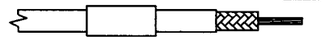
1. BEGIN BY CUTTING THE CABLE OFF SQUARE.



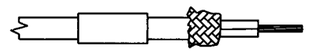
2. STRIP THE CABLE AS SHOWN, BEGINNING WITH L1 AND ENDING WITH L2. TAKE CARE NOT TO NICK THE CONDUCTORS WHILE STRIPPING THE DIELECTRIC AND JACKET. THE USE OF A STRIPPER DESIGNED FOR COAXIAL CABLE IS RECOMMENDED.



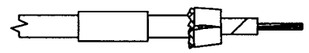
3. SLIDE THE FERRULE AND ADHESIVE SHRINK TUBING OVER THE END OF THE CABLE. △1



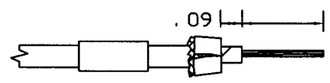
4. USING TWEEZERS, FOLD THE OUTER BRAID BACK OVER THE CABLE JACKET, LEAVING AS MUCH WEAVE AS POSSIBLE.



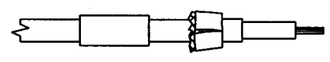
5. SLIT FOIL LONGITUDINALLY AND FOLD BACK OVER THE OTHER SHIELD.



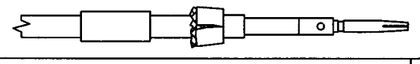
6. REMOVE THE DIELECTRIC FROM THE CENTER CONDUCTOR BACK APPROXIMATELY .60 INCHES FROM THE END OF THE CONDUCTOR. BE CAREFUL NOT TO NICK THE CENTER CONDUCTOR. THERMAL STRIPPERS ARE RECOMMENDED. LEAVE APPROXIMATELY .09 INCHES OF DIELECTRIC ON THE CABLE FOR THE CUP IN THE STIFFENER.



7. INSTALL DIELECTRIC STIFFENER OVER CENTER CONDUCTOR AND THE CABLE DIELECTRIC MAKING SURE THAT CABLE DIELECTRIC IS FULLY SEATED INSIDE CUPPED END OF DIELECTRIC STIFFENER.

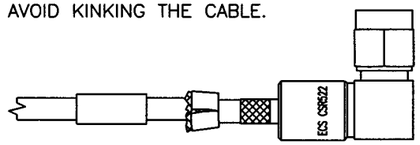


8. ENSURE THAT THE CONTACT IS BUTTED AGAINST THE DIELECTRIC STIFFENER. TERMINATE CONTACT USING METHOD A OR B.
   a) SOLDER CONTACT ONTO CENTER CONDUCTOR, PER MIL–STD–2000, USING 63Sn/37Pb SOLDER. CLEAN FLUX RESIDUE USING APPROPRIATE CLEANER.
   b) CRIMP CONTACT ONTO CENTER CONDUCTOR USING A M22520/5–09 DIE (B HEX). IN A M22520/5–01 TOOL FRAME.

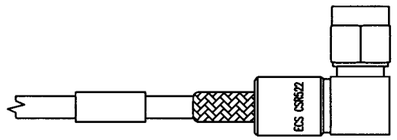


REVISIONS					
ECN	ZONE	REV.	DESCRIPTION	DATE	APROVED
13939	–	N/C	NEW RELEASE	6/28/01	D KNOLL
17356	–	A	CHANGED STIFFENER AND STRIPPING DIM'S	4/16/03	D. Knoll

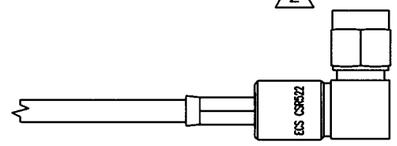
9. SLIDE THE BODY OF THE CONNECTOR OVER THE END OF THE CABLE UNTIL THE NOTCH IN THE CONTACT SEATS INTO THE RIDGE INSIDE THE CONNECTOR DIELECTRIC. CAUTION: PUSH CABLE INTO THE CONNECTOR STRAIGHT TO AVOID KINKING THE CABLE.



10. FOLD BOTH SHIELDS BACK OVER THE NECK OF THE CONNECTOR BODY.



11. SLIDE THE FERRULE UP OVER THE SHIELDS AND AGAINST THE CONNECTOR BODY. TRIM AWAY ANY EXCESS BRAID. CRIMP THE FERRULE ONCE, NEXT TO THE BODY, USING THE M22520/5–09 DIE (A HEX) IN A M22520/5–01 TOOL FRAME. APPLY ADHESIVE HEAT SHRINK. △2



NOTES

△1 ENSURE HEAT SHRINK IS INSTALLED PRIOR TO CRIMPING CONNECTOR.

△2 ADHESIVE HEAT SHRINK SHOULD BE APPLIED IN ACCORDANCE WITH ECS WORK INSTRUCTION WI007. CONTACT ECS FOR A COPY OF THIS WORK INSTRUCTION.

△3 CONNECTOR DIMENSIONS ARE FOR REFERENCE ONLY.

ALL LENGTHS IN INCHES

APPROVALS	DATE
DRAWN BY V. LEX	06/20/01
CHECKED BY C CHAPMAN	7/5/01
DESIGNED BY:	
PROJECT ENG:	
ENG. MGR: DAVID E. KNOLL	6/28/01

ELECTRONIC CABLE SPECIALISTS
FRANKLIN, WI 53132
PHONE: (414) 421–5300

TITLE: CUSTOMER SPECIFICATION
SMA 90° PLUG FOR ECS CABLE 432101 AND 532101

SIZE	CAGE CODE	LEVEL	PART NO.
B	66197		CSR522

F:\STORAGE\E\SPEC\CONN\INST\CSR522 SHEET 1 OF 1