



DEPARTMENT OF THE NAVY
NAVAL SURFACE WARFARE CENTER
CARDEROCK DIVISION

NAVAL SHIP SYSTEMS
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IN REPLY REFER TO

9504
Ser 965/004
28 February 2007

From: Commanding Officer, Naval Surface Warfare Center,
Carderock Division, Naval Ship Systems Engineering Station

To: Defense Logistics Agency,
Defense Supply Center Columbus (Code VQP)

Subj: ALLOWANCE FOR ALTERNATIVE STEPS IN TERMINATION PROCESS, FABRICATION OF
FIBER OPTIC CABLE TOPOLOGY

1. Purpose.

This letter addresses allowance for alternative steps/processes used to terminate fiber optic cable assemblies. Termination is the placement of fiber optic connectors, termini and splices onto the ends of a fiber optic cable. These cable assemblies include those for (1) aircraft cable harnesses, (2) line and weapons replaceable avionics boxes with internal fiber optics, (3) circuit card modules and assemblies with internal fiber optics, (4) fiber optic test jumpers, (5) shipboard trunk and drop cable runs, (6) shipboard Blown Optical Fiber cabling, and (7) other miscellaneous cabling. The applicable Fiber Optic Cable Topology (FOCT) component military specifications that are under DSCC cognizance and require test sample fabrication for QPL testing are as follows: MIL-PRF-24623, MIL-I-24728, MIL-PRF-28876, MIL-PRF-29504, MIL-C-83522, MIL-DTL-38999, MIL-PRF-85045.

2. Introduction.

Naval Surface Warfare Center, Carderock Division, Ship Systems Engineering Station (NSWCCD-SSES) is tasked by the Naval Sea Systems Command (NAVSEA) to provide technical support for qualification and test efforts regarding FOCT components. One subtask is to provide technical support/consultation to DSCC. As part of the subtask, NSWCCD-SSES is clarifying the allowance for an alternative to using Navy standard termination processes. These processes are contained in MIL-STD-2042, NAVAIR 01-1A-505-4/T.O. 1-1A-14-4, or the applicable NAVSEA drawing.

3. Background.

Components and processes to fabricate a cable assembly are specified to ensure consistency in optical performance, decrease the matrix of test sample configurations required for qualification, level the playing field for multiple party testing, comply with the mandate to reduce cost and simplify logistic support (personnel training, material storage, etc.) and compensate for lack of current standardization.

4. Distribution statement

Distribution Statement A: Approved For Public Release, Distribution Is Unlimited.

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5. Applications.

It is recognized that not all applications have requirements as stringent as those in which the component can meet when constructed with the specified materials and processes used for the component qualification.

6. Allowance.

Cable assemblies may be fabricated using different materials (such as cabling) and processes (such as cure schedule and ferrule end face polishing) depending on the specific application requirements and when specified by the applicable military Program Office.

7. Responsibility.

It is the responsibility of the fabrication house to get acceptance from the applicable military Program Office via the purchasing authority for any material or process change that deviates from that specified for the component qualification.

8. Constraints.

Specified military qualified components must be used with no substitutions or commercial equivalents. Specific materials and processes, when specified, must be used.

9. Applicability.

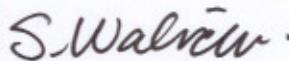
This allowance applies only to fabrication houses constructing cable assemblies, in-house, for initial installations and replacement cable assemblies. No allowance is given for shipboard terminations when specified to MIL-STD-2042, for aircraft terminations when specified to NAVAIR 01-1A-505-4/T.O. 1-1A-14-4, field terminations, or qualification test samples (initial and retention).

10. Addressees.

This letter is intended for DSCC and other Government agencies/activities, parties in direct support of the Government agencies/activities, vendors, and out-of-house (outside the component's vendor facilities or independent) test laboratories.

11. Point of contact.

DSCC-VQP is to be the initial point of contact for the qualification issues/inquiries that pertain to this matter. Principle point of contact is Alex Baillieul. He can be contacted by telephone: (614) 692-2867 or E-mail: VQP.ab@dla.mil. Alternative point of contact is Richard Marbais. He can be contacted by telephone: (614) 692-0620 or E-mail: richard.marbais@dla.mil. NSWCCD-SSES point of contact for technical support to DSCC on this matter is E. Bluebond. Technical questions may be addressed to the following Government Email address: DLGR_NSWC_foweb@navy.mil.



S. WALICKI
By direction

Copy to:
NAVSEA 05Z5 (M. McLean)
NAVSEA PEO IWS (J. Moschopoulos)

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NAVSEA PEO IWS (H. Lewis)
NSWC DD W13 (G. Brown)
NSWC DD W13 (R. Throm)
NAVAIR 3.2 (M. Breckon)
NAVAIR 4.1D/6.7.1.6 (H. Proffitt)
NAVAIR 4.4.4.3 (J. Collins)
NAVAIR 4.4.4.3 (D. Harrell)
NAVAIR 4.5.1.1 (G. Walles)
NAVAIR 4.5.6 (T. Curran)
NAVAIR 4.5.7 (B. McDermott)
NAVAIR 4.5.7 (M. Beranek)
NAVAIR 4.5.7 (J. Namkung)
NAVAIR 4.5.7 (M. Hackert)
NAVAIR 4.8.1.3 (A. Michon)
SPAWAR PMW-160 (N. Freije)
SPAWAR PMW-160 (R. Orchard)
SPAWAR. PMW-164 (R. Evans)
SPAWAR 04N-43A (D. Zsutty)
SPAWAR 051 (C. Suggs)
SPAWAR 053 (D. Kinsey)
DSCC-VQP (Alex Baillieul)
DSCC-VQP (J. Casto)
DSCC-VAT (D. Leight)
DSCC-TEB (J. Hemmila)