



Engineered optical components for demanding systems

M29504 • ARINC 801 • Glass optical fiber • Plastic optical fiber

Product portfolio overview

XIOPTICS.COM



TA0001

A focused supplier built around engineered standards

XiOptics develops and supplies precision optical interconnect components with the technical depth, disciplined execution, and direct support required for demanding applications.

01

ENGINEERING DEPTH

Understand the interface beyond minimum compliance language.

02

DISCIPLINED EXECUTION

Connect product details, configuration control, quality evidence, and supply execution.

03

DIRECT SUPPORT

Give engineers, quality teams, and procurement direct access to knowledgeable specialists.

Minimal claims. Maximum proof.

Products, drawings, test methods, part numbers, and controlled records do the explaining.

Two primary product families anchor the portfolio

Established industry interfaces provide compatibility and continuity; XiOptics focuses engineering effort on the terminus implementation.

MIL-PRF-29504

Pin and socket termini for D38999 and ARINC 600 / ARINC 404 connector systems, including glass- and plastic-fiber configurations.



ARINC 801

Optical termini for ARINC 801 connector systems, supported by application engineering and a defined validation program.



Current product configuration and qualification status are confirmed against controlled records.

M29504 spans circular and rectangular interfaces

The slash-sheet number identifies the connector-system position; construction and optical media define the configuration.

Interface	Pin	Socket	Construction	Optical media
D38999 Series I, III and IV	/4	/5	Style 1 or Style 2	Single-mode, multi-mode, POF
ARINC 600 / ARINC 404	/6	/7	Style 2	Single-mode, multi-mode, POF

D38999



ARINC 600 / 404



Style 2 removes a process-sensitive termination step

The design replaces the adhesive-lined heat-shrink strength-member retainer used by Style 1 with an extended bonding cup.



STYLE 1

Adhesive-lined shrink tubing captures the fiber jacketing and strength members.



STYLE 2

Bonding cup supports direct fiber, strength-member, and jacket retention; the smooth extended body interfaces with the connector rear seal.

Unibody POF supports large-core plastic fiber

The all-stainless-steel terminus combines the ferrule and body into a practical architecture for 500-1100 μm fiber bores.



500-1100 μm

Available fiber-bore range

Up to 1.1 mm coated core

Up to 0.09 in jacket diameter

- Type 2 bonding cup supports optical media, strength member, and jacket retention.
- Tapered entry and exit geometry supports adhesive application and fiber insertion.
- Legacy typical measurement: below 0.5 dB at 650 nm; complete-process conditions matter.

ARINC 801 uses a defined validation program

The plan evaluates the complete channel under optical, environmental, mechanical, use, and intermate conditions.



TA0001

TA-1260-S-P

Test-plan article reference

OPTICAL

Attenuation, return loss, CIT

ENVIRONMENTAL

Thermal cycling, humidity, temperature life, salt spray, thermal shock

MECHANICAL

Vibration, shock, retention

USE

Maintenance aging, 500 mating cycles, pull-out, intermate

The test plan does not by itself establish current qualification status.

Support runs from selection through production

Useful answers begin with a defined interface, optical media, cable, and program requirement.

01	SELECT	Interface • pin/socket • fiber • ferrule bore • cable OD
02	INTEGRATE	Assembly method • tooling • end-face • cleaning • inspection
03	CONTROL	Drawing revision • configuration • qualification evidence • traceability
04	SUPPLY	Quantity • sample need • required date • quotation • documentation
Available by request		Public drawings • datasheets • termination guidance • tooling information • controlled qualification evidence



Bring us the interface, fiber, cable, quantity, and need date.

XiOptics will help identify the current configuration, supporting documents, and quotation path.

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Configuration, availability, and qualification status are confirmed against current controlled records at quotation.