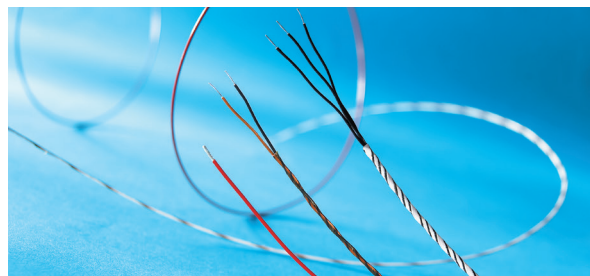


ESCC CABLES, CONNECTORS & CABLE ASSEMBLIES

MADE BY AXON'

ESCC WIRES & CABLES

AXON' supplies a large range of wires and cables in compliance with ESA standards. Lightweight and highly resistant, they have been designed to meet the challenging requirements of **launchers** and **satellites** including internal cabling of electronic boxes, LEO and cryogenic applications. From single core hook-up wires to coaxial cables and data bus cables, AXON' offers a large range of ESA approved wires and cables.



ESCC 3901 APPROVED WIRES AND CABLES				
PRODUCT FAMILY	DESCRIPTION	OPERATING TEMPERATURE	CHARACTERISTICS	HERITAGE
ESCC 3901 001	Polyimide insulated wires and cables	-100°C to +200°C	Large conductor gauges: AWG 12 to 16.	HOT BIRD, LISA PATHFINDER, ARIANE 5, EUROSTAR 3000
ESCC 3901 002	Lightweight polyimide insulated wires and cables	-100°C to +200°C	Smaller conductor gauges than the ESCC 3901 001 family: AWG 18 to 28.	HOT BIRD, LISA PATHFINDER, GAIA, ARIANE 5, ALPHASAT, SENTINEL 2, GALILEO
ESCC 3901 012	Extruded cross-linked ETFE insulated wires and cables	-100°C to +200°C	Large range of conductor gauges from AWG 12 to 30.	CBERS, SAOCOM, SENTINEL, METOP
ESCC 3901 013	PTFE insulated wires and cables	-100°C to +200°C	Internal cabling of electronic boxes. PTFE allows for a thinner jacket and improves flexibility.	PLANCK, LISA PATHFINDER
ESCC 3901 018	Polyimide / Fluorothermoplastic insulated wires and cables	-200°C to +200°C	Low Earth Orbit (LEO) applications. Jacket resistant to atomic oxygen (ATOX) environment.	GOCE, BEPI COLOMBO
ESCC 3901 019	CELLOFLON® / Polyimide insulated wires and cables	-200°C to +200°C	Cryogenic applications (optical instruments), and wherever mass is a critical issue. Celloflon® is a weight saving material with high stability across large temperature range.	EXOMARS ROVER, GALILEO, METOP
ESCC 3901 021	CELLOFLON® / Polyimide insulated shielded cables with drain wire	-200°C to +200°C	Same as 019 family. In addition, a drain wire is provided to ease shield construction.	SOLAR ORBITER, METOP
ESCC 3901 024	Abrasion Resistance Tape (ART®) PTFE insulated wires and cables	-200°C to +200°C	Abrasion resistant ART® PTFE AXON' tape Improved flexibility and bend radius.	VEGA LAUNCHER

ESCC 3902 APPROVED WIRES AND CABLES				
PRODUCT FAMILY	DESCRIPTION	OPERATING TEMPERATURE	CHARACTERISTICS	HERITAGE
ESCC 3902 002	Coaxial cable: CELLOFLON® PTFE dielectric	-200°C to +180°C	Coaxial line with 50 or 75 Ohms.	SOLAR ORBITER, SENTINEL, MTG
ESCC 3902 002	Triaxial cable: CELLOFLON® PTFE dielectric	-200°C to +180°C	Triaxial line with 50 or 75 Ohms.	SENTINEL, MTG
ESCC 3902 002	Twisted pair bus cable	-200°C to +180°C	Balanced shielded line with 75, 100 or 120 Ohms.	GAIA, HOT BIRD, SENTINEL 1, EXOMARS, GALILEO, QUANTUM, BIOMASS, SENTINEL, HMU3010, MTG-IRS, PRISMA, TURKSAT-6A, METOP
ESCC 3902 003	SpaceWire quadribus cable	-200°C to +180°C	100 Ohm LVDS protocol.	AMS, COROT, GAIA, ALPHASAT
ESCC 3902 004	Lightweight SpaceWire quadribus cable	-100°C to +150°C	100 Ohm LVDS protocol.	EXOMARS, MTG, SOLAR ORBITER, CHEOPS

AXON' CABLE SAS

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CONNECTORS

AXON' CABLE supplies triaxial connectors for MIL-STD-1553 harnesses as well as miniature Micro-D connectors for diverse applications in compliance with ESA standards. Lightweight and small, these products are an ideal solution for space applications.

PRODUCT FAMILY	DESCRIPTION	OPERATING TEMP.	CHARACTERISTICS	ESA QUALIF. STATUS	HERITAGE
ESCC 3401 029 ESCC 3401 032	Micro-D connectors	-55°C to +125°C	1.27 mm contact spacing connectors: small, lightweight & robust.	ESCC QPL	CURIOSITY, SOLAR ORBITER, STAR TRACKERS, EXOMARS, METOP
ESCC 3401 079	ACB1 Databus connectors	-55°C to +150°C	Triaxial connector for twisted shielded AWG24 pair cables.	ESCC QPL	SAOCOM, AMAZONIA
ESCC 3401 086	Nano-D connectors	-55°C to +150°C	0.635 mm contact spacing connectors: extreme miniaturisation.	EPPL2	SEOSAR PAZ
ESCC 3401 089	AXOMACH® & SPACEFIBRE High Data Rate equipment connectors*	-55°C to +125°C	100 Ohm high speed data connector, up to 10 Gb/s NRZ per line.	ESCC QPL	METEOSAT, MAVEN, BIOMASS, MILITARY SATELLITES
ESCC 3401 091	Micro-D D-Click® connectors	-55°C to +125°C	Fast-latching Micro-D connectors.	ESCC QPL	MEGA CONSTELLATION
ESCC 3401 092	VERSATYS® miniature power connectors	-55°C to +200°C	Connectors with size 12 non removable power contacts.	QPL pending	MEGA CONSTELLATION
ESCC 3401 093 ESCC 3401 094	VERSATYS® miniature power connectors	-55°C to +200°C	Connectors with size 12 removable power contacts.	QPL pending	MEGA CONSTELLATION, GEO SATELLITES
ESCC 3401 095	MICROMACH® High Data Rate equipment connectors**	-55°C to +125°C	MICROMACH® impedance matched connector, capable of data rates in excess of 3 Gb/s.	EPPL2	SMILE EXPLORER
ESCC 3401 100	SNAPLITE® fast locking connectors	-55°C to +125°C	2 and 4 way composite connectors, non removable contacts	QPL pending	SMALL SATELLITES

EPPL: European Preferred Part List / QPL: Qualified Part List

* : This connector type is designed to be mounted into an equipment. Cable mount connectors are specified in the ESCC 3409 001.

** : This connector type is designed to be mounted into an equipment. Cable mount connectors are specified in the ESCC 3409 002.

CABLE ASSEMBLIES

In addition to wires and connectors, Axon' Cable has a large expertise in the manufacture of cable assemblies.

PRODUCT FAMILY	DESCRIPTION	OPERATING TEMP.	CHARACTERISTICS	ESA QUALIF. STATUS	HERITAGE
ESCC 3408 003	RF cable assemblies	-55°C to +125°C	Microwave links up to 45 GHz, Q band.	ESCC QPL	GEO SATELLITES, TELECOM. SATELLITES
ESCC 3408 004	RF cable assemblies	-55°C to +125°C	Microwave links up to 32 GHz.	ESCC QPL	
ESCC 3409 001	AXOMACH® & SPACEFIBRE High Data Rate link	-55°C to +125°C	100 Ohm high speed data link, up to 10 Gb/s NRZ line.	ESCC QPL	METEOSAT, MAVEN (NASA), BIOMASS, MILITARY SATELLITES
ESCC 3409 002	MICROMACH® High Data Rate link	-55°C to +125°C	MICROMACH® impedance matched connector, capable of data rates in excess of 3 Gb/s.	EPPL2	SMILE EXPLORER

PROCESSES APPROVED BY FRENCH SPACE AGENCY (CNES)

PID	DESCRIPTION	HERITAGE
CNES-PID-02-Axon'	Specific PID for space harness manufacturing according to MIL-STD-1553B	EUROSTAR 3000, SPACEBUS 4000, ARIANE 5, VEGA, GALILEO, SENTINEL, 03B, AS250 QUANTUM, BIOMASS
CNES-PID-03-Axon'	Specific PID for SpaceWire harness manufacturing and control	ALPHABUS, BEPI COLOMBO, EXOMARS, SENTINEL, GAIA, SOLAR ORBITER
CNES-PID-04-Axon'	Specific PID for electrical harness	ALPHABUS, EXOMARS, MTG, SENTINEL, GAIA, METOP, PROBA-V, PLANCK, EUCLID, E-SAIL
CNES-PID-05-Axon'	Specific PID for Power Interface Distribution System	EUROSTAR 3000, ERDS, SPACEBUS 4000, ALPHABUS, AMOS, GSAT-11
CNES-PID-06-Axon'	Specific PID for ACB1 connectors	SAOCOM, VEGA, INSIGHT (SEIS)
CNES-PID-15-Axon'	Specific PID for MICROMACH® high speed data link connectors and cable assemblies	SMILE EXPLORER
CNES-PID-17-Axon'	Specific PID for standard and D-Click® Micro-D connectors	CURIOSITY, SOLAR ORBITER, STAR TRACKERS, EXOMARS, METOP, MEGA CONSTELLATION
CNES-PID-18-Axon'	Specific PID for RF & microwave assemblies up to 45 GHz	GEO SATELLITES, TELECOMMUNICATION SATELLITES
CNES-PID-19-Axon'	Specific PID for RF & microwave assemblies up to 32 GHz	
CNES-PID-20-Axon'	Specific PID for AXOMACH® High Data Rate connectors and cable assemblies	METEOSAT, MAVEN, BIOMASS, MILITARY SATELLITES

PID: Process Identification Document

CNES: Centre National d'Etudes Spatiales (French Space Agency)