



EN4165 / SIM RJ45 Ethernet

*Integrate a RJ45 Ethernet in a rectangular connector
- to protect it against environmental agressions
- with one of the smallest form factors on the market*



Commercial Aerospace
Defence



BROCHURE 08/24 - V3.0

Customer Service
2 rue Clément ADER, Zac de Wé
08110 CARIGNAN - FRANCE
Tel : +33 (0)3 24 22 32 66
customer-service@amphenol-airlb.fr
www.amphenol-airlb.fr



Amphenol Air LB
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PRESENTATION

Amphenol Air LB has expanded its range of modules for high speed signal and now offers two versions of RJ45 Ethernet modules:

- Standard version
- Angled PCB contacts version

They can be mounted in all SIM / EN4165 connectors.

Use of a rectangular connector, mounted on panel, reduces the required space on the structure.

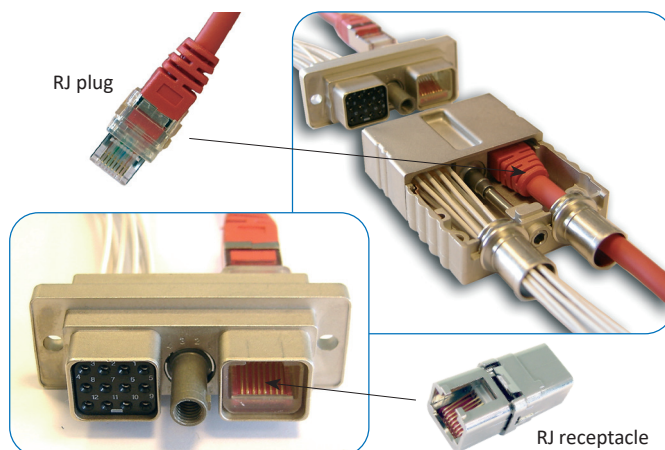
The optimization is even better when several rectangular connectors are mounted juxtaposed -> **Space saving**

The insertion of the RJ45 plug into the module requires no tool

-> **Time saving**

Its locking is characterized by a sensory and auditory click.

The RJ45, integrated in a rectangular connector, is protected against the environmental aggressions (salt spray, humidity, shocks, vibrations, ...) -> **Reliability**



TECHNICAL DATA

MATERIAL

Shell : Thermoplastic

MECHANICAL

Shocks : 50 g during 11 ms
Vibrations : Sinusoidal, frequency from 10 to 500 Hz, 10 g, 3 H per axis
Cable handling in the plug: 100 N in the axis

CLIMATIC

Operating temperature: -40° to +100°C permanent
(given by the RJ45 cable)

DATA TRANSMISSION

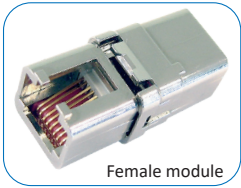
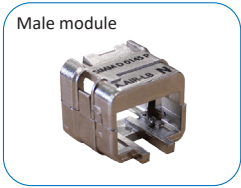
Standard version		Cat 3	Cat 5E	Cat 6	Cat 6A
Information	Standard	ISO11801 ; EIA/TIA568			
	Data rate	10 MBit/s	1 GBit/s	1 GBit/s	10 GBit/s
	Frequency	16 MHz	100 MHz	250 MHz	500 MHz
Solutions	Class Ea	x	x	x	x
	Class C	x			

Angled PCB cts version		Cat 5E	Cat 6	Cat 6A
Information	Standard	Ethernet IEEE 10G base T		
	Data rate	1 GBit/s	1 GBit/s	10 GBit/s
	Frequency	100 MHz	250 MHz	500 MHz
Solutions	Ethernet IEEE 10G base T	x	x	x

Fo more information, graphics and test reports are available in the SIM connectors catalogue.

PART NUMBERS

STANDARD VERSION



The female module is not compatible with the back accessories.

Part number		
	Male module	Female module
Class Ea (category 6A)	SIM M D 0145 P N	SIM M D 0145 E S N
Class C (category 3)		SIM M D 0145 S N

ANGLED PCB CONTACTS VERSION











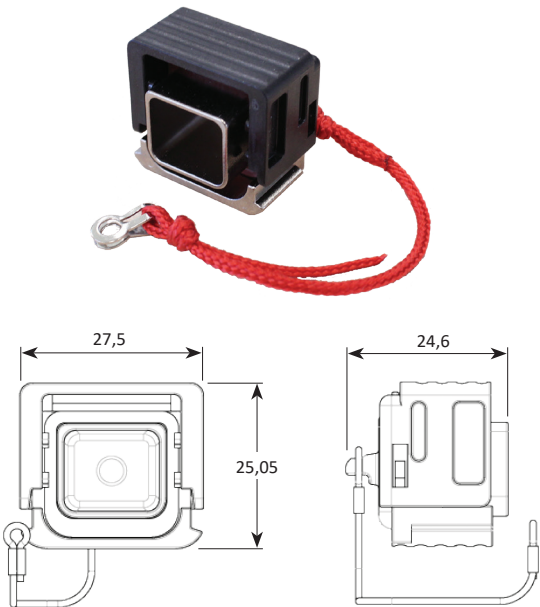
Part number		
	Male module	Female module
Ethernet IEEE 10G base T	SIM M D 0145 E P S	SIM M D 0145 E S S

ACCESSORIES

FLIGHT CAPS FOR RECEPTACLE

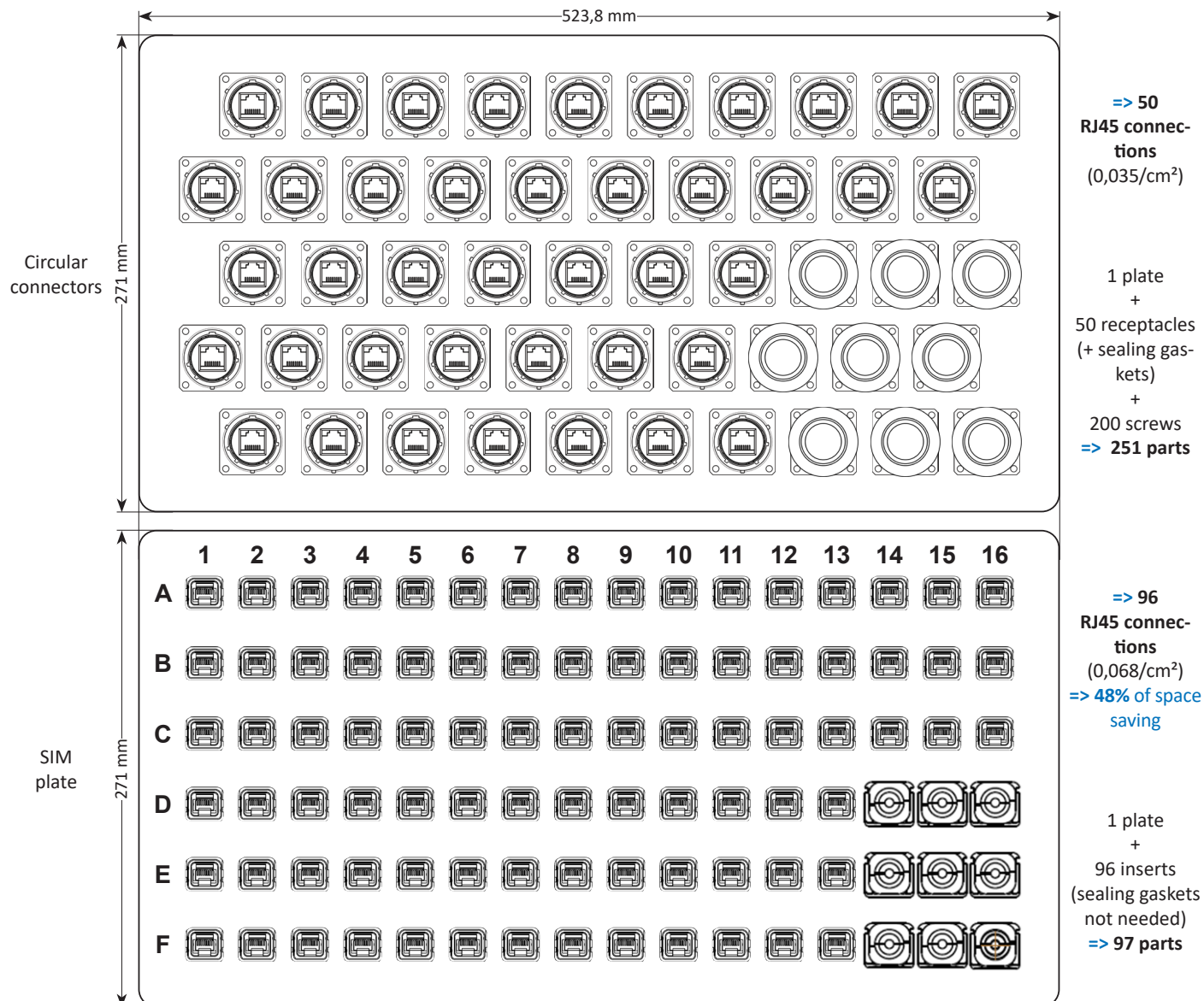
It provides protection against shocks, dust and fluids.

	Polarization	Color	P/N
	N	Black	SIM 2 B 2 A61
	A	Red	SIM 2 B 2 A62
	B	Blue	SIM 2 B 2 A63
	C	Green	SIM 2 B 2 A64
	D	Yellow	SIM 2 B 2 A65
	E	Pink	SIM 2 B 2 A66
	F	Light Green	SIM 2 B 2 A67
	G	Grey	SIM 2 B 2 A68
	without	Black	SIM 2 B 2 A61



OPTIMIZATION OF SPACE REQUIREMENTS

Example of SIM RJ45 Ethernet modules integration on a SIM plate compared to RJ45 circular connectors implantation on a plate with similar dimensions.



Monoblock machining -> **TIME SAVING ON ASSEMBLY** ⌚

Removing fasteners -> **FOD REDUCTION** 🚫

Single part number -> **SUPPLY CHAIN SIMPLIFICATION** 📦

Juxtaposition of connectors -> **SPACE SAVING** 📏

Design optimization -> **WEIGHT SAVING** ⚖️

↓

OVERALL COST SAVING 💰