



r3Com: wireless for nuclear

r3Com is a wireless communication system, especially designed to be used in nuclear radiation environment.

HIGHLIGHTS

- > Wireless Communication System (Wi-Fi)
- > Guaranteed Radiation Hardened > 1kGy
- > Stainless steel (inox)
- > Modular design for optimized maintenance
- > Real time monitoring of cumulative radiation level (r3Care)
- > OEM or integrated system

This system is designed and manufactured by ELEMENTS. r3Com is a telemetry and telecommand (TM/TC) hardened function, a wireless communication system, especially designed to be used in nuclear radiation environment.

It allows reliable remote control for systems operating in hostile environments and it is fully compliant with nuclear safety regulation.

The system is sold as an OEM or an integrated system.

Technical features

Wifi standard	802.11 b/g/n	Performance management	Soft and Hard auto-diagnosis
Datalink protocol	Full Duplex MIMO	Emergency management	Manual and automatic emergency stop
Frequency	2.4 GHz / 5 GHz	Mechanical interface	Generic and specific adaptable interface available
Security	WPA2 / MAC	Documentation	User and Maintenance manuals
Radiation (Total ionizing Dose Co60)	> 1000 Gy	Antenna type	Omnidirectionnal
Materials	Stainless steel (Inox)	Electrical interface	Ethernet 1000BaseT
Typical overall dimensions	300 x 200 x 200 mm	Contamination Protection	Optional vinyl bag
Mass	6 kg	Atex	Option
Temperature range	-20°C to +60°C	Antenna protection	Optional decontaminable cover
Humidity	0% to +95%	Area for use	Indoor and Outdoor
IP Protection	IP54	Connectors (typical)	1xRJ45 Female, 1xAmphenol Male
Power supply	12 Vdc, 220 Vac	Configuration interfaces	Web software
Power Consumption	≤ 20W		
Compliant with mobile systems	Speed up to 5km/h		

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Space heritage for nuclear market

ELEMENTS is a company located in Toulouse, France. ELEMENTS develops embedded modular systems for nuclear field based on space market background.