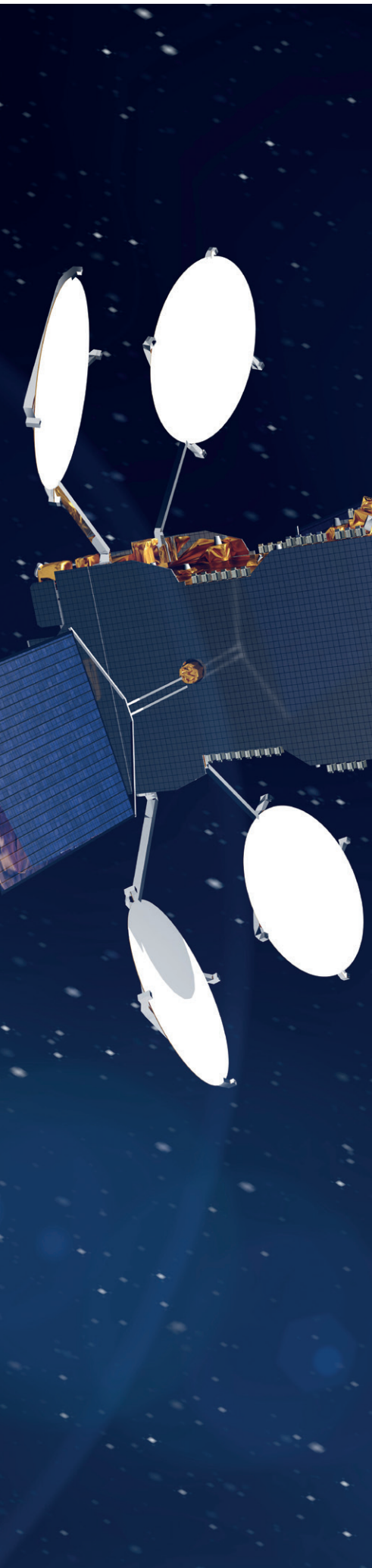


# SPRINT REFLECTORS

## ANTENNA REFLECTORS PRODUCT LINE

- VERY LIGHTWEIGHT STRUCTURE FOR SYSTEM ANTENNA OF GEO SATCOMS PLATFORM
- HUGE SHAPE ACCURACY & HIGH TEMPERATURE STABILITY
- DESIGN TO COST
- DISRUPTIVE INNOVATIONS WITH MODULARITY TO VARIOUS SPACECRAFT ACCOMMODATION
- OPTIMIZED MANUFACTURING PROCESS
- UP TO Q/V BAND MISSION AND C-BAND SHAPING COMPATIBILITY



# SPRINT REFLECTORS

Over the past 20 years, ArianeGroup, within its division Products, Equipment & Services, has acquired a strong heritage on antenna reflectors. Hundreds of reflectors have been produced, all of which have been fully operational in missions.

## Our products:

► **Adaptability** of SPRINT reflectors on **2T and 6T** GEO satcoms platforms

► **Versatility** of the use of SPRINT reflectors:

- Compatibility up to Q/V Band mission and C-Band shaping
- Adaptability of the shape according to customer needs

► **Reflector product line qualified in 2023**

► **Strong heritage** from ULR (Ultra Light Reflector)

► **Disruptive technologies:**

- High Modulus Carbon Fiber composite with aramid & aluminium honeycomb
- Mid-cured composite junctions between shell and backing structures
- Various inserts in sandwich structures for mechanical junctions

► **Production:**

- 11 weeks manufacturing cycle with production rate 12 units / year
- 2 months manufacturing cycle

METRIC	UNIT	SPECIFICATIONS			
Configuration	mm	< Ø2400		> Ø2400	
Mass	kg	< 19		< 23	
Stowed size (w/o HRM I/F)	mm³	2100 x 2300 x 183		2700 x 2600 x 194	
Global RMS accuracy End of manufacturing and TED	µm	< 100		< 120	
Central RMS accuracy End of manufacturing and TED	µm	< 80		< 100	
Thermal qualification	°C	[-210; +185]			
Shell technology	-	Sandwich CFRP / NIDA Nomex			
Structure technology	-	Sandwich CFRP / NIDA Aluminium			
Satellite Platform	Qualified for 2 tons and 6 tons				
RF performances	-band	C	Ku	Ka	Q/V
Depolarization	dB	< 0.02			
Reflection loss (0°, 90°)	dB	Tx < 0.04 Rx < 0.05		Tx < 0.08 Rx < 0.12	
Measured PIM (Order 3 and 4)	dBc			-161	-174 -180

## A UNIQUE EXPERTISE TO SERVE OUR CUSTOMER NEEDS

► On top of mastering composite structure manufacturing, ArianeGroup offers reliable solutions to its customers thanks to unique competencies in design and conception, mechanical and thermal analysis, mechanical and thermal tests.

### CONTACT

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