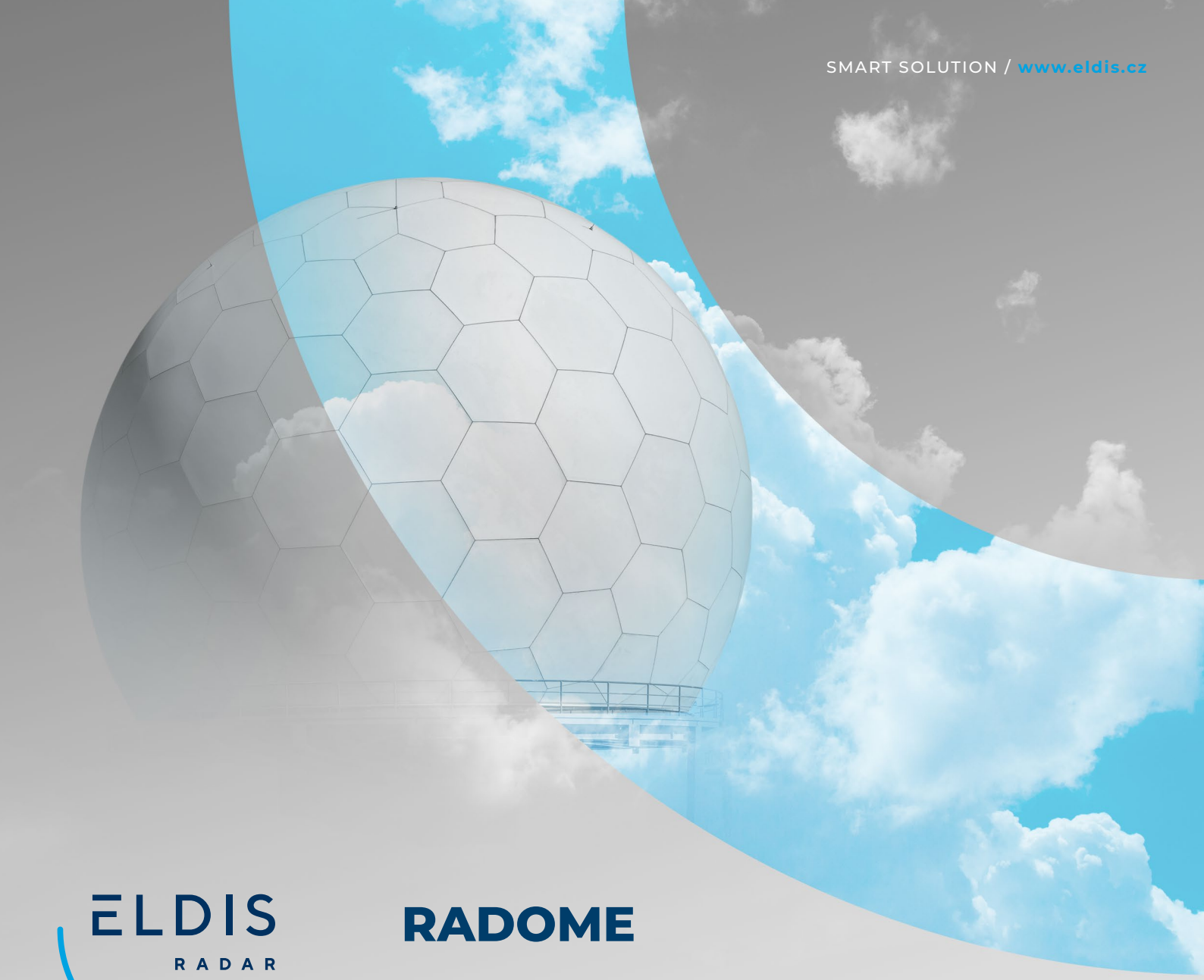

ELDIS
RADAR
SYSTEMS

RADOME

Basic function of a radome is to provide protection for a radar antenna from outside environment while simultaneously minimizing impact on electromagnetic properties. The radome can improve overall system performance, reduce down-time, extend radar antenna‘s service life while decreasing maintenance costs. Addition of a properly designed radome provides a huge benefit to antenna system facing severe weather conditions.

ELDIS radome’s individual segments (panels) have a sandwich structure with a foam core and high-strength laminate layers. The top layers are fully weather resistant (sunlight, hail, etc.), the individual panels and the entire array are mechanically rigid enough to withstand strong winds and withstand significant snow and ice load. Sandwich panels and their joints are radio-transparent, not to negatively affect the radar‘s operation. The panels are bolted together to form a spherical shape. The panels at the base have a molded flange for attachment to a fixed part of the tower or other base. To unify the radome installation procedure, an anchor ring is used to fasten the radome to various types of tower or other base structures.

FUNCTION OF THE RADOME

- protects antenna from damage caused by severe weather conditions (rain, snow, wind, hails, etc.)
- improves the aerodynamics of antenna system and reduces its wind drag, which can improve the performance and efficiency of the radar system
- provides protected environment for any electronics located near the antenna

FUNCTIONAL CHARACTERISTICS

The technical parameters of an antenna radome will depend on the specific application and the requirements of the antenna system.

Frequency	L and S band
Transmission loss	< 0.5 dB
Snow steady	330 kg/m²
Wind steady	240 km/h
Temperature range	-50°C +70°C
Hail stone survivability	tested
Design Life	20 years
UV resistance	yes
Water resistance	yes

TYPICAL MECHANICAL CHARACTERISTICS

Outer diameter (mm)	11 800
Weight (kg)	3 500 approx
Radome height (mm)	9 800
Number of panels	81
Zenith hatch	yes
Color	white (other colors possible)

TYPICAL PHYSICAL CHARACTERISTICS

Sandwich Wall	Internal closed cell foam core
Exterior Surface	Gelcoat
Air Pressure	Not required
Maintenance	Routine cleaning
Design Life	20 years

ADDITIONAL ACCESSORIES

- Aviation Obstruction Lighting
- Lightning Protection
- Zenith Access
- Interior Lighting
- Safety Interlock system
- Radome Access
- Ventilation
- Air Conditioning
- Fire Detection & Protection
- Internal Lifting Kit
- Repair Kit

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