KATHREIN
SCALA DIVISION

Panel Antenna Test Specifications

Kathrein Scala Division panel antennas are designed to survive the following environmental tests:

Type	Parameter	Detail Parameter	Test Severity	Duration	Reference
Vibration IEC class 4M5 (Mechanical Test)	[2]sinusoidal	displacement (mm) acceleration (m/s^2) frequency range (Hz) axes of vibration	7.4 4 5–9 9–200 3 axes	3 x 5 sweep cycles	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Shocks IEC Class 4M5 (Mechanical Test)	[2]shocks	duration (ms) acceleration (m/s^2) number of shocks direction of shocks	6 250 6 directions	 500 bumps/each direction	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Air Temperature IEC Class 4K2-expanded (Climatic Test)	[3]low [3]high	(°C) (°C)	-40 (cold) +75 (dry heat)	16 hours 16 hours	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Humidity IEC Class 4K2 (Climatic Test)	relative	high (%) (°C) Condensation (%) (°C)	93 +30 90–100 +30	21 days 6 cycles	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Air IEC Class 4K2 (Climatic Test)	speed	(m/s)	50 400,000 cycles	none	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Water IEC Class 4K2 (Climatic Test)	[4]rain	intensity (impacting water)	$0.01 m^3$/min 90 kPa water test chamber	15 min	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Radiation IEC Class 4K2 (Climatic Test)	[5]solar	(W/m^2)	1120	max. 1000 hours	[1]ETS 300 019-2-4 [1]IEC 721-3-4
Salt mist (Corrosion Test)	[2]NaCl Concentrate	Concentration (%) Humidity (%) Temperature (°C) Cyclical	5 95–98 35	96 hours (continuous)	IEC 68-2-11

Note 1: ETS 300 019-2-4 : 1994: (Stationary use on non-weatherprotected locations)
European Telecommunication Standard
IEC 721-3-4 : 1995: (Stationary use on non-weatherprotected locations)
International Electrotechnical Commission
Note 2: Equipment under test mounted in the “in-use” position.
Note 3: Includes heat irradiation emitted from the equipment.
Note 4: The effect of splashing water is included in this test.
Note 5: The heating effect on equipment is covered by the test Dry Heat.
Photochemical tests for materials are made separately.

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