



RADAR ANTENNA SERIES **ASX-2104**

GENERAL DESCRIPTION

The GEM ELETTRONICA series ASX-2104 is specially design for high performance applications and better integrates fully solid state radar transceiver. Both linear horizontal and circular polarization are available, so making this series the choice for virtually all shore-based radar installations.

Maintenance-free, the antennas comply with the most severe environmental requirements and the rotation rate can be remotely selected.

FEATURES

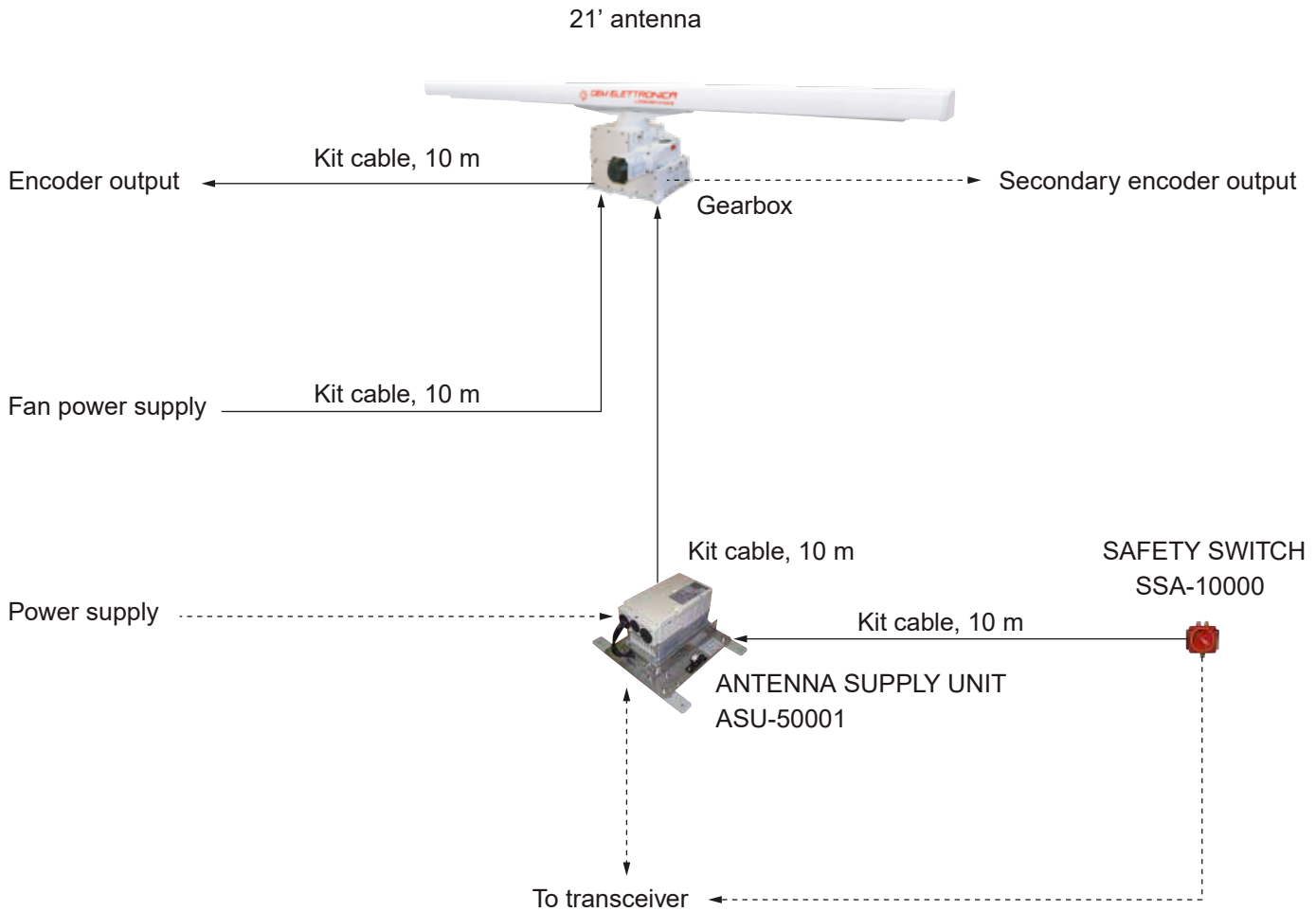
- High azimuth discrimination
- Fan-beam
- Compliant to IALA GUIDELINE 1111, ed. 1, May 2015, advanced performances
- Functionality 24 h for 360 day/night all-weather conditions.
- Can be remotely driven to select different rotation rates
- Can interface different GEM ELETTRONICA radar transceivers
- Compact aspect

APPLICATIONS

The antenna series ASX-2104 is targeted to top-ranked applications, such as:

- Vessel Traffic System (VTS), Vessel Traffic Management & Information Systems (VTMIS)
- Coastal Surveillance & Security
- Surface Movement Guidance Control System (SMGCS)
- Homeland Security

GENERAL DIAGRAM OF CONNECTION



ORDERING INFORMATION

Order Code	Antenna Length	Switchable Polarizations	Nominal center frequency	Antenna Supply Unit	Safety Switch	Gearbox	Tilt	rpm
ASX-2104	21 feet (6.51 m)	Horizontal	9225 MHz 9500 MHz	ASU-50001	SSA-10000	MU-3122	TIM-12000	6, 11, 16, 22
ASX-2104/C	21 feet (6.51 m)	Circular	9225 MHz 9500 MHz	ASU-50001	SSA-10000	MU-3122	TIM-12000	6, 11, 16, 22

SUPPLY COMPOSITION AGAINST EACH ORDER CODE

- Antenna system including gearbox and antenna unit
- Tilt Unit
- Antenna Supply Unit (ASU)
- Safety switch Unit (SSA)
- Connecting cables kit (standard lengths: 10 mt)
- Certificate of conformance
- Packing list

OPTIONS:

- Depending on installation requirements, cable lengths are delivered in accordance with Buyer's instructions
- Can be released at other center frequencies between 8800-9600MHz upon Buyer's requirement
- Use and installation manual in English language

SERIES SPECIFICATIONS

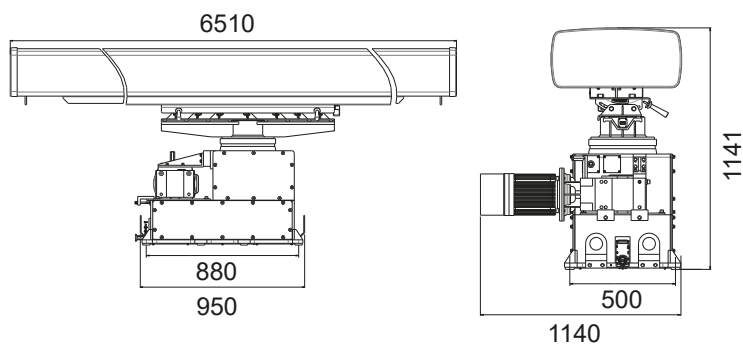
BASIC PERFORMANCE DATA	ASX-2104	ASX-2104/C
Antenna type:	Slotted waveguide array	
Nominal Center frequencies	from 9225 MHz to 9500 MHz	
Frequency band around each center frequency	80 MHz	
Array length:	21 feet (6.51 m)	
Polarization:	Horizontal	Circular
Gain:	38 dBi \pm 0.5 dB	38 dBic \pm 1 dB
VSWR:	less than 1.2:1	
Beamwidth (at -3 dB)		
Horizontal:	0.35° \pm 0.02°	
Vertical:	11° \pm 1°	
Sidelobes		
Within \pm 10°:	less than -28 dB	
Outside \pm 10°:	less than -35 dB	
Azimuth encoders:	16384 or 8192 or 4096 pulses per revolution	
Rotation speed:	6, 11, 16, 22 rpm	
Drive Motor Power:	3.5 kW	
Operational wind speed:	up to 100 knots	
ELECTRICAL POWER		
Required supply at ASU input:	mono phase, 50/60 Hz	
Voltage:	220 Vac	
Absorption:	less than 2 kW	
ENVIRONMENTAL PERFORMANCES		
Operating temperature range		
Standard	from -25° C to +55° C	
With heating unit	from -40° C to +70° C	
Relative humidity:	up to 100% at +40° C with dehydrator	
Vibrations:	in accordance with IEC-60945	
Vibrations/shock:	1g from 0 to 50 Hz	



OUTLINE

dimensions in mm

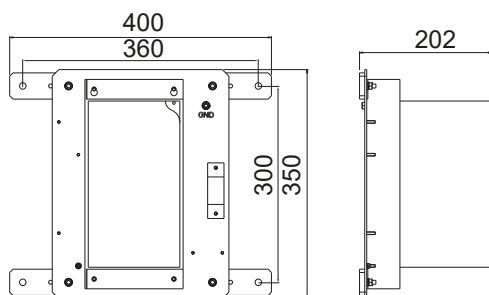
21' ANTENNA and ROTATION UNIT



Weight
 Antenna Unit: 178 Kg
 Rotation Unit: 245 Kg
 Tilt: 31 Kg

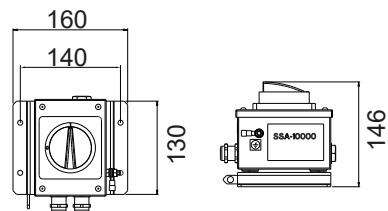
ANTENNA SUPPLY UNIT

ASU-50001



Weight 10 Kg

SAFETY SWITCH



Weight 2 Kg

