

## Servicii de constatare si diagnosticare radar ELTA ELM-2226 (ACSR - Advanced Coastal Surveillance Radar)

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Descriere: Consultarea pietei in vederea obtinerii unei variante optime(financiare si tehnice), pentru achizitionarea unui serviciu de constatare si diagnosticare radar ELTA ELM-2226 (ACSR -Advanced Coastal Surveillance Radar) pentru echipamentul instalat in locatia Perisor, cu urmatoarele specificatii tehnice: SYSTEM MAJOR COMPONENTS GENERAL The system is composed of the following units (LRUs): • Antennae Pair (ANT) • Pedestal (including pedestal controller) • Transmitter (TX) • Front-End-Receiver (FER) • Main Electronic Unit (MEU) including: Exciter Waveform Generator Up-Converter Receiver Signal and Data Processor Unit Controller • Low Voltage Power Supply The in door sub system is comprised of the following units (LRUs): • Radar Operator Station (ROS) • UPS (Option). The ACSR's antenna pair, pedestal and stand (part of the out doors sub systems) TECHNICAL SPECIFICATION The following sections specify the main technical features of the ACSR LRUs ANTENNAE PAIR The antenna pair includes two wide bandwidth parabolic reflector type antennas featuring low sidelobes. • Type: Parabolic Reflector • Frequency range x band • Size 1.8m in AZ. 07m in EL • Antenna gain 38db • Azimuth beamwidth 1.2° at 3db points • Elevation beamwidth 3.6° at 3db points • Sidelobes Near<-22db; Far: <-40db • Polarization Linear Vertical • Feeders (50ohm,VSWR 1.5:1): REC: WR- 90 flange • TX: WR- 90 flange • Transmit/receive isolation: >80db PEDESTAL The pedestal consists of an azimuth positioner and driver, a slip-ring assembly for power, control and data transfer, and a shaft encoder for measurement of azimuth angle. The pedestal controller controls the pedestal. The pedestal is fed from the regular main supply (110/220VAC) through cables drawn from the station. Pedestal data Drive Blushless DC motor Scan capabilities (AZ) continuous 360° Sectors scan any sector, any direction Angular velocities (AZ) 1 to 30 RPM Stop capabilities ANY DIRECTION Accuracy in azimuth  $< 0.2^{\circ}$  Resolution in azimuth better than 0.1 Duty cycle 24 hours daily, all year round TRANSMITTER The ACSR transmitter is a Solid State amplifier, which amplifies the RF signals generated by the exciter, to 5Watt CW power level. The power amplification is performed in a coherent manner by the Solid State amplifier so that extensive coherent pulse compression and coherent processing can be performed by the system. Note: A 50W transmitter ( option ) can be also accommodated when installing the radar at height acceding 150m for high detection range. Transmitter Data • Frequency range X band • Peak power output 5 Watt • Duty cycle Continuous Wave (CW) • Gain >40db Power consumption <100Watt</li>
DC input voltage +15v MEU The tasks performed by the MEU include: • Low noise RF power amplification • RF reception and down conversion • RF frequency synthesis • Basic clock generation • RF up conversion • Waveform and timing generation • IF processing • BIT handling and reporting (to ROS) • Pedestal angle data reception (for target azimuth derivation) • Data pre-processing The MEU is connected to the antennae Pair via RF waveguide and Coax, and to the ROS via power and communication lines.