

AVIYAAN CORS REFERENCE STATION



HIGH ACCURACY GNSS

High-performance Mosaic-X5 GNSS receiver module with multi-constellation tracking and advanced interference mitigation



BUILT-IN BATTERY

Built in rechargeable battery to ensure backup power for continuous recording



WEB INTERFACE

Access the instrument data and check status using an easy to use web interface accessible anywhere



ETHERNET CONNECTION

Access the instrument data and check status using an easy to use web interface accessible anywhere



CORS SPECIFICATION

Receiver Specification	
Mosaic-X5 Receiver Engine	
448 Channels	
GPS	L1C/A, L1PY, L2C, L2P, L5
GLONASS	L1CA, L2CA, L2P, L3 CDMA
Beidou	B1I, B1C, B2a, B2b, B2I, B3
Galileo	E1, E5a, E5b, E5 AltBoc, E6
QZSS	L1C/A, L1 C/B, L2C, L5
Navic	L5
SBAS	Egnos, WAAS, GAGAN, MSAS, SDCM (L1, L5)
RTK	
Horizontal Accuracy: 0.6cm + 0.5ppm	
Vertical Accuracy: 1cm + 1ppm	
Maximum Position Update Rate: 100Hz	
Data output protocols	
Septentrio Binary Format (SBF)	
NMEA 0183, v2.3, v3.03, V4.0	
RINEX v2.x, v3.x	
RTCM v2.x, v3.x (MSM included)	
CMR v2.0 (out/in), CMR+ (input only)	
Interfaces: USB-C, Ethernet	
128 GB MicroSD Card Storage	
NTRIP and TCP/IP Data Output	
Upload Log Files to FTP Server	
Battery: 3.7V, 9000 mAh with integrated 5V 1A battery charger	
Mechanical	
Weight	470g
Dimensions	170x100x57 mm

Antenna Specification	
Harxon HX-CSX627A	
Antenna element	
Supported positioning signal bands	
GPS	L1, L2, L5
GLONASS	G1, G2, G3
BeiDou	B1, B2, B3
Galileo	E1, E5a, E5b, E6
QZSS	L1, L2, L5
Navic	L5
SBAS	WAAS, EGNOS, MSAS and GAGAN
Polarization: RHCP	
Axial Ratio @ Zenith: <3dB	
Azimuth Coverage: 360 degrees	
Impedance: 50 ohm	
Phase center error: ±2mm	
NGS Calibration file available	
Electrical Specification	
Supply voltage: 3-12V	
Typical supply current : 45mA	
Average LNA gain: 40dB	
Maximum Noise Figure: 2dB	
Polarization: RHCP	
Mechanical Specification	
Maximum length: 152mm	
Weight: 500g	
Mounting style: 5/8" x 11TPI thread	
Connector: TNC female	
Supply voltage: 3.3-12V	
Environmental	
Operating Temperature: -40 to +70°C	
Storage Temperature: -55 to 70°C	

Designed and Manufactured in Nepal by

