

Supply, Installation, Testing & Commissioning of 01 x Outdoor Daylight SMD Display (20 ft × 12 ft)

1. Scope of Work

The successful bidder shall be responsible for the complete design, supply, transportation, installation, testing, commissioning and 02 x year warranty support of **01 x Outdoor Daylight SMD LED Display (20 ft × 12 ft)** at NDMA Islamabad.

2. Technical Specification

Ser	Item Description	Technical Specs	Qty	Unit
01	Outdoor Full Color Daylight SMD LED Display	• Screen Size: 20 ft × 12 ft, • Pixel Pitch: P4 (4 mm), • Brightness ≥ 9,500 Nits, • Refresh Rate ≥ 5,760 Hz, • Pixel Density ≥ 62,500 Pixels/m², • Viewing Angle H≥160° V≥140°, • LED Composition: RGB, 16-bit Color Processing, • Adjustable Color Temperature (3000K–18000K), • Frame Rate 60–120 FPS, • LED Life ≥100,000 Hours, • Protection Level: Front & Rear IP65, • Operating Temperature -10°C to +50°C, • Storage -25°C to +60°C, • Humidity 10–90%, Non-Condensing • Average Power ≤270W/m², • Maximum Power ≤800W/m², • Working Voltage AC 100–240V, 50/60Hz • Power Supply: 220/240 volts • Module Mask: High-Contrast, UV-Resistant, Anti-Glare Black Injection-Molded Mask with high dimensional accuracy • Control System: Synchronous Control • Module Resolution: 80x40 • Module Size: 320x160 • Best View Distance: 4 m • Source Compatibility: Ethernet, WiFi	01	Job
02	SMD Structure/ Cabinets / Magnets	• Outdoor SMD Structure, weatherproof cabinets / Magnets with front maintenance, precision alignment, quick locking mechanism and IP65 protection. • Lockable, tamper-resistant access to all cabinets and the rear maintenance platform.	01	Job
03	LED Controller System	• Professional synchronous LED control system with Sending, Receiving Cards and all required accessories.	01	set

		- Professional LED Video Processor supporting HDMI, DVI, DP, VGA, 4K input, audio out, image scaling, Wifi, Ethernet, multi-window and Picture-in-Picture (PIP) features. - Content and screen Management Software (CMS) for scheduling, playlist management and remote content push, with licensing terms (perpetual or subscription) and number of user licenses clearly stated.		
04	Outdoor Sound System	- Supply, installation, testing and commissioning of a weather-resistant professional audio system comprising minimum 4 × full-range active speakers (≥50 W RMS each) with digital audio mixer/DSP, capable of delivering clear, high-quality speech and multimedia audio for the complete SMD display coverage. - The sound system shall support USB and 3.5 mm audio inputs, operate on 220–240 VAC, and include all necessary mounting hardware, cabinet, cabling and accessories for a complete turnkey installation.	01	Set
05	Automated Voltage Regulator (AVR)	Servo-controlled AVR of minimum 20 kVA capacity, suitable for continuous 10 kW load at minimum PF 0.8 with cables and accessories.	01	No
06	Omada Tplink outdoor AP	- EAP-772-Outdoor AP or equivalent - Tri-Band Six-Stream Outdoor WiFi 7- Up to 11 Gbps. 6 GHz Band Unlocked by AFC enables 6 GHz band outdoor uses. - True Tri-Band Omnidirectional Coverage: 300m2 (3,200ft2) recommended coverage - Industry-Leading IP68-Rated, 1× 2.5G PoE+ port, 2.4 GHz dual-polarized antennas. - Wall/pole mounting; Omada SDN for one-click setup. - Advanced Features: Centralized management, mesh, and seamless roaming.	01	No
07	Structural Support Frame/ Foundation	Heavy-duty Hot Dip Galvanized Steel (HDGS) structure with minimum 8 to 10 ft ground clearance, wind resistance up to 150 km/h, rear maintenance platform, access ladder, equipment mounting brackets and corrosion-resistant finish.	01	Job
08	Electrical System and cabling	Complete power cabling using copper conductors, conduits, cable trays, cable	01	Set

		glands, ferrules, connectors and termination. Underground power and data cabling between the control room and the display structure shall be routed through a covered cable trench / conduit, particularly where crossing any walkway or road.		
09	Power Supply Units	Industrial-grade Meanwell, G-Energy or equivalent power supplies with sufficient redundancy for complete display and CB of 60 Amp.	01	Lot
10	Data & Signal Cabling	CAT-6 cables, fiber optic cable (where required), communication accessories, connectors and patch cords.	01	Job
11	Earthing System	Independent earthing pit with copper bonded earth rods, copper strip/cable, inspection chambers and earth resistance not exceeding 1 Ohm.	01	Job
12	Lightning Protection	Complete lightning protection system including lightning arrestor, down conductor, surge protection and integration with earthing system.	01	Job
13	Weather proof Enclosures	Outdoor IP65 enclosures for controller, processor, electrical equipment and associated accessories.	01	Job
14	USB 3.0	High-speed USB flash drive with minimum 64 GB storage capacity, USB 3.0 Type-A interface (backward compatible with USB 2.0), minimum sequential read speed of 100 MB/s and write speed of 20 MB/s, compatible with Windows, Linux and macOS, plug-and-play operation, durable housing, supplied with minimum one-year manufacturer's warranty.	05	No
15	1 x 4 HDMI Splitter	Professional-grade 1 × 4 HDMI Splitter capable of distributing one HDMI input signal simultaneously to four HDMI outputs without degradation in video or audio quality. The device shall support 4K @ 60 Hz, HDMI 2.0, HDCP 2.2, built-in signal equalization, metal enclosure, and shall be supplied with all required power adapters, HDMI cables, mounting accessories, and installation hardware.	01	No
16	Installation & Commissioning	- Complete installation, integration, testing, calibration, commissioning, system optimization and site acceptance testing. - Maximum acceptable dead/faulty pixel ratio (e.g. not exceeding 0.001%) to be defined and verified at acceptance testing.	01	Job

		• Minimum 72-hour continuous burn-in/soak test prior to handover, with test report. • Brightness and colour uniformity tolerance across the full display to be verified and documented.		
17	Documentation	• User manuals, wiring diagrams, structural drawings, as-built drawings, warranty certificates and test reports.	01	Lot
18	Training	• Three days onsite hand holding training covering operations and management.	01	Job
19	Warranty & Support	• Minimum 02 years comprehensive onsite warranty, preventive maintenance, free software updates, replacement of defective parts and technical support. • 1% Spare LED modules, and spare power supply units and receiving cards, to be supplied and handed over to NDMA at project completion.	01	Job
Grand Total				

Note: The bidder shall provide a complete turnkey solution. Any item, accessory, hardware, software, electrical work or installation material not specifically mentioned but required for successful installation, safe operation and commissioning of the Outdoor Daylight SMD Display shall be deemed included in the quoted price, with no additional cost.