



## TECHNICAL SPECIFICATIONS



### Matrix PRASAR UCS – Pure IP for Modern Business Communications

An Enterprise-grade Unified Communication solution that offers Collaboration, Communication, Messaging, and Mobility. Matrix PRASAR UCS brings diverse users from multiple locations to a common communication platform for real-time collaboration and communication. The users have options of using either Matrix SPARSH desk-phones or Matrix VARTA applications on smartphones or tablets of their choice. With an Embedded UC Platform and advanced call management, Matrix PRASAR UCS improves the organization's agility and productivity.

TECHNOLOGY	
Type of Switching	IP at Core
Processor Speed	900 MHz Dual Core

TECHNICAL PARTICULARS	SPARK200	SPARK200
Compatible Server Software	PRASAR UCS SME	PRASAR UCS ENT
IP Subscribers	Up to 250	Up to 2100
VoIP (SIP) Trunks	99	
VoIP (VOCODER) Channels	Up to 248	

Voice Mail Channels	Up to 64	
VARTA UC Client	250	2100
Simultaneous Auto Attendant Sessions (Multi-Lingual IVR)	64	
Power Supply	AC-DC Adapter based (24V DC, 2.5 A) (Dual Adapter Connectivity with failover option)	
Installation	19" Rack Mount with 1U Enclosure Table Top	
Redundancy	1 + 1 Active-Active Redundancy	

SYSTEM RESOURCES	CAPACITY
VoIP/SIP Users	2100
VoIP/SIP Trunk	99
LAN Port	1 (Gigabit)
WAN Port	1 (Gigabit)
VoIP Channels/ Vocoder Channels	248 Channels Max. (4 Vcoders)
Max. Voice Mail Channels	64 max.
Max. Number of Participants in Single Conference	64 Max.
Conference 3-Party	21 Max.
Call Recording/Tapping	21 Max.
Simultaneous RTP Relay, DRTP calls	550 max.
Simultaneous Transcoding calls	124 Max.
Supported Audio codes	G.711u/a-law, G.729, GSM, iLBC, G.723
System should support IETF RFC	3261, 3262, 3262, 3389, 3550, 3551, 3311, 3265, 4733, 2915, 2916, 2327, 2833, 2806, 768, 793, 1034
Network Protocols	IPv6, IPv4, TCP, UDP, SNTP, STUN, ARP, ICMP, PPP, DNS, SMTP
VoIP Quality of Service	Support of Layer 2/3 CoS/QoS for SIP and RTP
Security	SRTP/TLS over SIP, MD5 Authentication for SIP, AES128 Password Protected Configuration by Admin and User
RAM	2 GB
ROM	256 MB
System Clock Speed	900 MHz – Dual Core
Storage	System supports USB drive up-to 256 GB (8680 Hours of Storage)

Configuration	Web-Based Intuitive GUI
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SYSTEM RESOURCES	SPARK 200	DESCRIPTION
NX DBM VOCODER64	4 Modules (248 Channels)	VOCODER DAUGHTER-BOARD MODULE (Hardware) for SPARK200 capable to support maximum 64 simultaneous VOCODING channels
Concurrent IP-to-IP Calls Without Transcoding	550	PRASAR is built-on with IP at core
Concurrent IP to IP Calls With Transcoding	124	Two VOCODER channel is used to transcode every call using transcoding
Concurrent Video Calls from IP to IP User	55	VOCODER Channel is not used (Does not support transcoded video calls)
Concurrent Audio Conferences (3-Participants)	21	PRASAR has a total 64 party conference capacity. Conference license is required for conference functionality.
Participants in a Single Audio Conference	64	PRASAR has total 64 party conference capacity. Conference license is required for conference functionality.
Concurrent Call Tapping / Conversation Recording	21	Voice Mail channels and Vocoder channel is required for Call Tapping/Conversation Recording
Concurrent Voice Mail sessions with IVR	64	Concurrent calls management with Voice Mail Auto-attendant.

VoIP	
Type	DAUGHTER-BOARD MODULE on CPU
VOCODER Channels per DBM (DAUGHTER-BOARD MODULE)	64
VOIP Protocols	SIP v2, SIP over TCP, Symmetric RTP, RTCP, 100rel/PRACK
Network Protocol	IPv6, IPv4, TCP, UDP, SNTP, STUN, ARP, ICMP, PPP, DNS, SMTP
SIP	Maximum 99 SIP Accounts per System, Out Bound Proxy Support, Display Name, User Name, Password, URL, Proxy URL, Register Interval
VOIP Channels	128/248 VOIP Channels with 2/4 VOIP Daughter-Board Modules
Line Echo Cancellation	G.168 with 64/128ms Tail Length
Voice	Dynamic Jitter Buffer (Adaptive), Comfort Noise Generation and Voice Activity Detection
NAT	STUN and NAT Keep Alive
Voice CODECs	G.711 (A-law, $\mu$ -Law), G.723, G.729AB, GSM-FR, GSM-EFR and iLBC
Call Progress Tones	Dial tone, Ring Back Tone, Busy Tone, Error Tone
Fax	T.38 Relay and Pass Through
Quality of Service	SIP QoS and RTP QoS
Security	SRTP/TLS over SIP, MD5 Authentication for SIP, Password Protected Configuration by Admin and User
Physical Connector	Ethernet (RJ45) Gigabit Port, Auto MDIX (10/100/1000 base-T)

VOICE MAIL	
Type	DAUGHTER-BOARD MODULE on CPU (Same module of VoIP)

VMS Channels	64
Voicemail Box	Dedicated Mail Box for each type of Extension (Analog, Digital, IP)
Voice Messages	15 Voice Messages of 16 second each
Voice Recording	Recording up to 8,680 hours with 256 GB USB Pen Drive

POWER SUPPLY	
Product	PRASAR UCS (SPARK 200)
Inputs	24VDC @2.5 A through External adaptor (100-240 VAC, 50-50 Hz)
Power Consumption (Typical)	60 Watt
LED Indications	3 LEDs for Power supply and Health Status

MECHANICAL	
Specifications	PRASAR UCS (SPARK 200)
Dimensions (W x H x D)	275 x 43.95 x 185.6 mm
Unit Weight	1.5 kg (3.30lbs)
Shipping Weight	2.3 kg (5.07lbs)
Type of Shipping Material	Corrugated Box
Installation	19" Rack Mount with 1U Enclosure Table Top

ENVIRONMENTAL	
Operating Temperature	0°C to +45°C (32°F to 113°F)
Operating Humidity	5-95% RH, Non-Condensing
Storage Temperature	-20°C to +70°C (-4°F to +158°F)
Storage Humidity	0-95% RH, Non-Condensing

**Note: Specifications are subject to change without prior notice**

## **ABOUT MATRIX**

Established in 1991, Matrix is a leader in Security and Telecom solutions for modern organizations. Matrix offers a comprehensive range of solutions for IP Video Surveillance, Access Control, Time-Attendance, and Telecom applications. The solutions are designed to meet the communication and security requirements of large enterprises having offices in multiple locations, SMEs, and SMBs.

As an innovative, technology-driven, and customer-focused organization, Matrix is committed to keeping pace with the revolutions in the Security and Telecom industries. With around 40% of its human resources dedicated to the development of new products, Matrix has launched over 60 cutting-edge products and solutions.

IP Video Surveillance includes solutions like Video Management Systems, Network Video Recorders, and IP Cameras. Likewise, solutions in Access Control and Time-Attendance include Visitor Management Solutions, Elevator Access Control, Panels, Door Controllers, and Readers.

We offer Telecom Solutions such as Unified Communications, IP-PBX, Universal Media Gateways, VoIP and GSM Gateways, and Communication Endpoints. All these solutions are feature-rich, reliable, and conform to international standards.



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