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MultiDSLA nodes datasheet

This Datasheet describes features, specifications and ordering information relating to the Node types which may be part of a MultiDSLA test system. A complete test system consists of a MultiDSLA Controller user interface application, plus one or more types of the 'node' devices described here

See also the following:
MultiDSLA Controller Datasheet, for details system features
MultiDSLA Brochure, for a general description of the MultiDSLA system
Audio Streaming Integrity Brochure, for details of this option

Node Selection Guide

- DSLA Series / Analog – Use for testing involving cellular phones, desk phones, analog (POTS/PSTN) phone lines, ATA's, PC sound cards (for soft phones), audio streaming devices...
- VPP Series – Use for VoIP network testing, VoLTE handset evaluation and in any testing

Node type—Quick reference

Model	Type	Interface	Harware	Software	No. of Nodes
DSLAIIC	Analog	RJ-22, RJ-11, 4mm Balanced	Desktop	(Measurement and control firmware in device)	2
DSLAIIC4		RJ-22, RJ-11	19" rack-mount		4
DSLAIIC6					6
VPP-fn	VoIP/SIP	Ethernet	No	Windows service	1-5, 10, 20, 30, 50, 100
VPP+n-f					

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DSLA Series / Analog Nodes

DSLA Technical Specification:
Dimensions (mm): DSLAIIC 72h x 218w x 200d DSLAIIC4/C6 85h x 425w x 387d
Net weight: DSLAIIC approx 3kg DSLAIIC4/C6 approx 7kg
Power: DSLAIIC 100-240Vac (external PSU) or 9-18Vdc, 12W DSLAC4/C6 100-240Vac
Operating temperature range: -2 to +40°C
Approvals & Compliance: CE Mark; FCC47 CFR Part15
Calibration: full calibration report supplied; recommended re-calibration cycle 3 years

Test Signal Generation

- DSLA Series / Analog – Use for testing involving cellular phones, desk phones, analog (POTS) phone lines, ATA's, PC sound cards (for soft phones), audio streaming devices...
- Any user-supplied speech material in wav or PCM format, generated with user-defi ned mean active speech level with setting range -99dBm to +10dBm
- Artifi cial Speech Test Stimulus (ASTS) British or American English; 8k and 16k sample rate
- Sine wave 20Hz to 22kHz, setting range -99dBm to +10dBm, any duration
- Swept sine wave 20Hz to 22kHz, setting range -99dBm to +10dBm, any duration
- White, Gaussian white or pink noise, setting range -99dBm to +10dBm, any duration
- DTMF setting range -99dBm to +10dBm any duration
- 6 Method B
- Noise in speech to within 20dB of mean active speech level
- Noise in speech to within 20dB of mean active speech level
- Peak and True RMS Levels
- Units of measurement dBm, mV
- Tone burst measurement mode
- Measurement of doubletalk (percentage of measurement period where speech is present on both channels)
- Linearity 0.1dB for levels -60 to +10dBm
- Linearity 0.1dB for frequencies 20Hz to 22 kHz ☐ Noise fl oor -85dBm or better
- Range of measured levels -75dBm to +19dBm
- Minimum measurable mean active speech level -65dBm
- Dynamic range of 4-wire inputs 110dB
- Synchronization
- GPS (product option) - GPS time and position data
- Network Time Protocol (NTP)

DSLA Series Accessories

- GPS module
- Bluetooth adapters for Narrowband and Wideband speech, and audio streaming
- Universal Smartphone adapters with LRGM and LRMG pinouts
- DSLA Connection Cables - two sets of cables to link
- DSLA to PC and laptop sound cards

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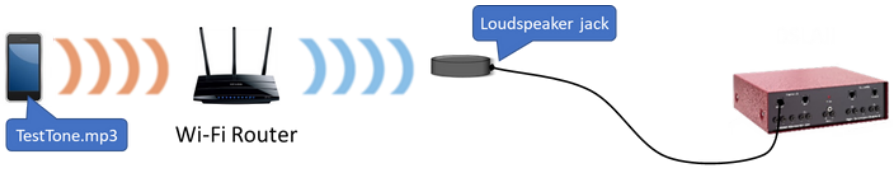
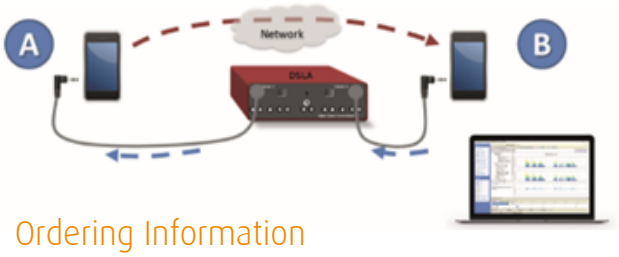
DSLA Use cases

Audio Streaming Integrity



Wi-Fi enabled streaming/casting device to Wi-Fi adaptor, via home router



Cellular Voice Quality Testing using DSLA

Ordering Information

Product No.	Model	Description
Digital Speech Level Analyser		
DSLAII		
000029	DSLAIIC	DSLAIIC - 2 channel unit
000030	DSLAIIC4	DSLAIIC - 4 channel 19 inch rack-mounting unit
000031	DSLAIIC6	DSLAIIC - 6 channel 19 inch rack-mounting unit
DSLA3		
000165	DSLA3	DSLA3 - Chassis
000166	DSLA3-MO-AL	RJ11 PSTN FXO Analog Line Module
000167	DSLA3-MO-AH	RJ22 Analog Handset Module
DSLA Options and Accessories		
BlueTooth		
000011	APTX	Custom Bluetooth adaptor, NB/WB speech, APTx Low-Latency
Handset		
000012	USP	Universal Smartphone LRGM Adapter
000013	USPR	Universal Smartphone LRMG Adapter
GPS		
000016	GPSM-USB	GPS Module - USB power supply connector
000017	GPSM-DSLA	GPS Module - DSLA power supply connector
000018	GPSM-SERIAL	GPS Module - DSLA Serial Connector (from DSLA S/N 5945)
000019	GPS-E25	GPS Extension Cable - 12V version - 25m for GPSM-DSLA
000020	GPS-E25S	GPS Extension Cable - 5V version - 25m for GPSM- SERIAL
000021	GPS-E50	GPS Extension Cable - 12V version - 50m for GPSM-DSLA
000022	GPS-E50S	GPS Extension Cable - 5V version - 50m for GPSM- SERIAL
000014	GPSCONV-USB	GPS Connection Cable Conversion for supplied Garmin GPS - USB power supply
000015	GPSCONV-DSLA	GPS Connection Cable Conversion for supplied Garmin GPS - DSLA power supply
Other Accessories		
000145	DSLA POWER SUPPLY	Power Supply
000023	DCC	DSLA Connection Cables
000139	CID	Called ID Cable Accessory
DSLA Upgrades		
000024	DSLA48kUPG	DSLAIIC upgrade for 48k sample rate support

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VPP Series / VoIP Nodes

Vox Port Packet is the reference softphone within MultiDSLA systems. VPP is used in labs for mobile tests with base stations and as a SIP service testing tool, allowing to monitor service availability and performance, on premise or for cloud-based solutions.

Licensing is managed by MultiDSLA controller. 'f' in VPPf or VPP+f means floating license.

Item	VPPf	VPP+f
Requisites	Windows 10 / 11	
	Windows Server 2016 / 2019	
	Intel Core Duo, 2 GB RAM minimum	
Network Interface (NIC) and IP Management	Definable network test interface for each call	
	IPv4 / IPv6 support	
Codec Support	G.711, G.729, G.729A, G.729B, G.723.1, G.722, G.726, iLBC, Opus, EVS all modes, AMR NB & WB with DTX, 8k, 16k, 32k linear pcm	
Frame size	5, 10, 20, 30, 40, 50, 60ms codec dependent	
Parallel instances per VPPf host	Maximum 30,	
	Can go up to 50 with specific hardware requisites	
User-defined static jitter buffer	X	X
Signaling capture	X	X
SIP over UDP	X	X
SIP over TCP		X
SIP over TLS		X
Secured RTP		X
IMS support		X
Inband and outband DTMF	X	X
SIPLess (no signaling, just RTP) support		X
DSCP tagging	X	X
Jitter and packet loss generation on output stream		X
AMR EVS in-call bit rate change		X
EVS to AMR interoperability		X
Packet based Loopback	X	X

Compliances
Signalling:
RFC2617
RFC2976
RFC3261
RFC3264
RFC3325
RFC3903
RFC4568
RFC5630

Media:
RFC3550
RFC3711

DTMF:
RFC4733

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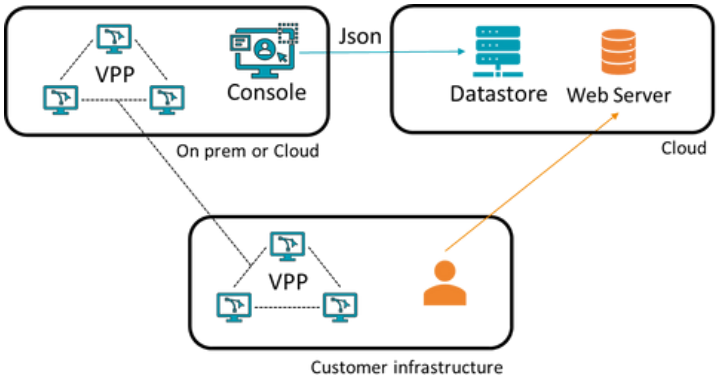
MultiDSLA Vox Port Packet use cases



24/7 SIP service monitoring

SIP quality and Root cause analysis
100% software
Cloud-based observability offer
Speech to text capabilities for IVR tests

Drive testing

Call are replaced if closed
GPS location
PESQ and POLQA scoring
Signal Strength (SMC)

Ordering Information

Product N°	Model	Description
VoxPort Packet Nodes		
VPPf: Automatically re-assignable instances of VPP		
000184	VPPf1	1 floating re-assignable instance of VPP
000185	VPPf2	2 floating re-assignable instances of VPP
000186	VPPf3	3 floating re-assignable instances of VPP
000187	VPPf4	4 floating re-assignable instances of VPP
000188	VPPf5	5 floating re-assignable instances of VPP
000063	VPPf10	10 floating re-assignable instances of VPP
000064	VPPf20	20 floating re-assignable instances of VPP
000065	VPPf30	30 floating re-assignable instances of VPP
000066	VPPf50	50 floating re-assignable instances of VPP
000067	VPPf100	100 floating re-assignable instances of VPP
VPP+f: Automatically re-assignable instances of VPP		
000189	VPP+f1	1 floating re-assignable instances of VPP+
000190	VPP+f2	2 floating re-assignable instances of VPP+
000191	VPP+f3	3 floating re-assignable instances of VPP+
000192	VPP+f4	4 floating re-assignable instances of VPP+
000193	VPP+f5	5 floating re-assignable instances of VPP+
000076	VPP+f10	10 floating re-assignable instances of VPP+
000077	VPP+f20	20 floating re-assignable instances of VPP+
000078	VPP+f30	30 floating re-assignable instances of VPP+
000079	VPP+f50	50 floating re-assignable instances of VPP+
000080	VPP+f100	100 floating re-assignable instances of VPP+