SVALE S3 spectrum surveillance station specifications

RF frontend

RF input frequency range:	20MHz - 8GHz (options:9kHz-18 GHz, 100kHz-40GHz)
Frequency reference accuracy:	±1 ppm + aging: <±3 ppm/year
Maximum input level range:	0 dBm (with frequency extension option, f<1MHz) to +10 dBm (f>20MHz)
Impedance:	50 Ω
Tuning frequency resolution:	1 Hz
Amplitude accuracy:	<±2.0 dB, ±1.5dB typical
IF bandwidth:	50MHz standard, 100MHz optional
Maximum settling time:	1 second
Noise figure:	5.5 to 9 depending on frequency (@ LNA on, attenuation 0dB)
DANL:	-166dBm/Hz ... -119dBm/Hz depending on attenuation and LNA settings
Phase noise:	-140dBc/Hz ... -105dBc/Hz depending on frequency and offset (CW signal, AGC off)
RBW range:	3.8kHz-15.6MHz (optional:0.9 Hz to 15.66 MHz @ w 18GHz frontend)
SFDR:	60 dB to 75 dB depending on preselector settings
TOI:	29dBm to 35dBm (@ LNA off, attenuation 20dB)
SHI:	58 dBm to 65dBm (@ LNA off, attenuation 20dB)
Scan speed:	30 GHz/s to 146 GHz/s depending on RBW

Communications, control and storage

Internal storage:	256GB SSD (option: 1TB SSD)
Control and data interface:	Internal 4G or Ethernet 1000Mbps (front panel)
Instrument tasking:	SVALE API via TCP/IP
Internal antenna rotator controller:	controlled via SVALE API, AZ and EL control, supported rotators: Yaesu G5500 (option: as per customer request)
Internal isotropic antenna control:	EMF measurement support via native interface

S3 housing

Front connectors and controls

- RF IN: 4 x N female / 50 ohms
- AZ/EL control: HRS circular outdoor graded connector
- Ethernet: Amphenol modular outdoor graded connector
- Ant. control: Multicomp circular outdoor graded connector
- AC/DC power: Binder circular outdoor graded connector
- LEDs: 3 x blue led for power status

Power supply 24-32V AC, max. 2A (mains adapter provided)
Operating temperature range –25°C to +50°C
Protection class IP65
Physical dimensions: 675 mm x 435 mm x 155 mm
Weight: 14kg

Antenna specifications

Supported antenna types:

- omni directional 25MHz-3GHz (option: up to 6GHz)
- LPDA 25MHz-3GHz (option: up to 6GHz)
- Discone 25MHz-3GHz

Software specifications

Minimum controller host requirements

CPU: Intel Core i3
RAM: 4 GB
GPU: OpenGL 2.0
HDD/SDD: 300 MB free space + additional free space for storing measurement results
OS: Win 10 64 bit

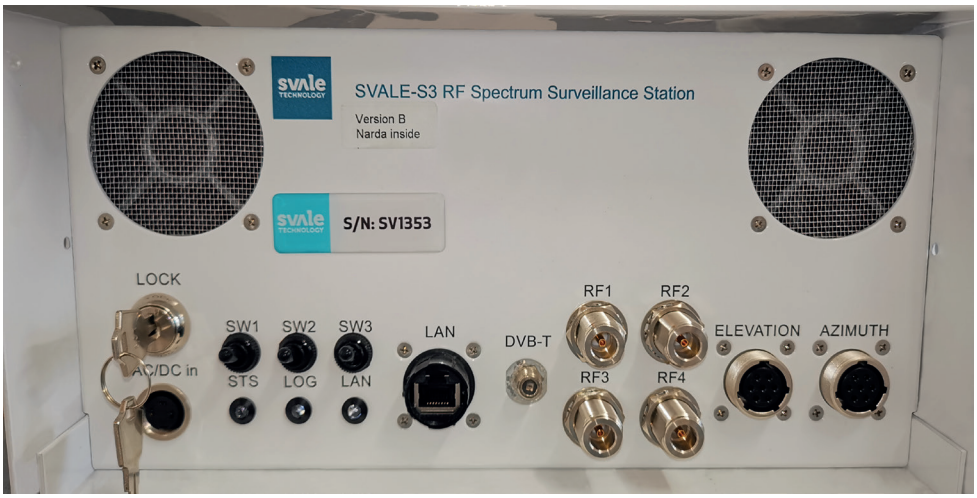
Recommended controller host requirements

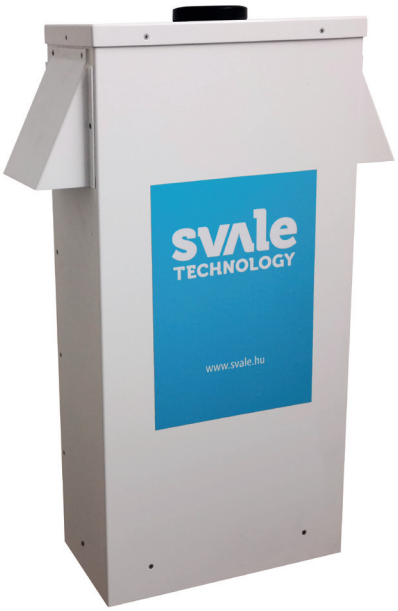
CPU: Intel Core i5
RAM: 8 GB
GPU: OpenGL 2.0
HDD/SDD: 300 MB free space + additional free space for storing measurement results
OS: Win 10 64 bit

Desktop UI software functions
Manage SVALE S3 stations
Configure and schedule measurements
Load and retrieve configurations and measurement results
Display results in spectrogram, waterfall display, field strength - time display, map display to show drive test results

SVALE API tasking interface functions
Configure and schedule measurements
Load and retrieve configurations and measurement results
Supported measurement types:

- streaming measured spectrum data over LAN
- streaming measured IQ data over LAN
- recording spectrum- and IQ data locally, based on predefined scheduling.





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