



SPECTERA Base Station



The Spectera Base Station is a 1 U hardware device that provides up to 64 channels (32 in / 32 out) and utilizes up to two wideband RF channels to accommodate all wireless transmission of the unit. It features redundant Dante® and optional redundant MADI, assuring seamless integration into your audio network. Additional antennas can be added for redundancy, extended zone coverage, or additional spectrum capacity.

FEATURES

- 19" 1 U Base Station with redundant power supplies
- Provides up to 64 channels (32 in / 32 out) and allows for up to two independent wideband RF channels in UHF or 1G4 (6 or 8 MHz) – country specific per region license
- 4 RJ45 antenna ports for redundancy, extended zone coverage, and additional spectrum usage
- Redundant Dante® audio interface
- Two expansion slots for redundant MADI (Expansion Card OM or BNC)
- Sample rates of 48 kHz and 96 kHz
- Individual sample rate converters for all audio interfaces
- Wordclock I/O BNC
- Synchronized clock for all audio over RF allows 3D recordings and playback
- Adjustable RF power from 10 – 100 mW (country specific)
- RJ45 ethernet network interface for full remote control with secured interface
- 11 Audio link modes with selectable audio codecs (OPUS, SeDAC or PCM)
- Secure transmission of confidential content using AES 256 encryption
- Future expansion via cascade port
- Selectable headphone output with volume control on front panel
- OLED display, jog wheel navigation, and rugged metal housing
- Base Station activation via LinkDesk: Spectera license defines respective frequency spectrum per region (license sold separately)

DELIVERY INCLUDES

- Base Station
- Power cables with country specific plugs (EU, UK, US)
- Quick guide
- Safety guide
- Manufacturer declaration sheet

PRODUCT VARIANTS

SPECTERA Base Station Art. no. 509162

ACCESSORIES

SPECTERA MADI Card (BNC)	MADI Card Coaxial for Base Station	Art. no. 509293
SPECTERA MADI Card (OM)	MADI Card Optical multimode for Base Station	Art. no. 509295
SPECTERA Filter set	Exchangeable filter for Base Station	Art. no. 700073



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SYSTEM LICENSES

Name	Art. no.	Frequency range	Certified Countries*
SPECTERA LIC (ZONE 01)	700532	UHF (470 - 608, 630 - 698 MHz) 1G4 (1350 - 1400 MHz)	EU + EFTA, United Kingdom, Turkey
SPECTERA LIC (ZONE 02)	700533	UHF (470 - 608, 657 - 663 MHz) 1G4 (1435 - 1525 MHz Certification pending)	USA
SPECTERA LIC (ZONE 03)	700534	UHF (470 - 608, 657 - 663 MHz)	Canada
SPECTERA LIC (ZONE 04)	700535	UHF (470 - 534, 534 - 608, 630 - 698 MHz)	Singapore
SPECTERA LIC (ZONE 05)	700536	UHF (470 - 608, 630 - 698 MHz) 1G4 (1350 - 1400 MHz)	South Africa
SPECTERA LIC (ZONE 06)	700537	UHF (470 - 608, 630 - 694 MHz)	Malaysia, Qatar
SPECTERA LIC (ZONE 07)	700538	UHF (470 - 510 MHz)	Israel
SPECTERA LIC (ZONE 08)	700539	UHF (487 - 608, 630 - 694 MHz)	Indonesia
SPECTERA LIC (ZONE 09)	700540	UHF (470 - 608, 630 - 694 MHz) 1G4 (1350 - 1400 MHz)	United Arab Emirates
SPECTERA LIC (ZONE 10)	700541	UHF (470 - 608, 630 - 698 MHz)	Philippines
SPECTERA LIC (ZONE 11)	700542	UHF (520 - 608, 630 - 694 MHz) - PRELIMINARY - Frequency range subject to change based on pending certification	Australia Certification pending
SPECTERA LIC (ZONE 12)	700543	UHF (510 - 606, 630 - 698 MHz) - PRELIMINARY - Frequency range subject to change based on pending certification	New Zealand Certification pending

* It is the responsibility of the user to inform themselves about the current local regulatory and certification requirements and to comply with them using wireless systems.



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SPECIFICATIONS

System

Transmission scheme	Multicarrier, TDMA, TDD
RF channel	Bandwidth: 6 or 8 MHz countrywise limited Mobiles devices: up to 128 per RF channel Audio links: up to 128 per RF channel
Radio frequency range	UHF: 470 - 608 MHz, 630 - 698 MHz 1G4: 1350 - 1400 MHz, 1435 - 1525 MHz countrywise limited
Audio frequency response	20 Hz to 20,000 Hz (± 1 dB) (Audio link modes with audio codecs SeDAC and PCM only)
Encryption	AES 256 CTR Mode exp. >10k years

Audio link modes

MIC/LINE	Mono	Max links per RF carrier	Utilized % of RF carrier	Audio codec	Latency	Range
Raw Low Latency	Mono	8	12.50 %	PCM	1.0 ms	Reduced
Raw	Mono	16	6.25 %	PCM	1.6 ms	Reduced
Live Low Latency	Mono	8	12.50 %	SeDAC	1.0 ms	Extended
Live	Mono	16	6.25 %	SeDAC	1.6 ms	Extended
Live Link Density	Mono	32	3.13 %	SeDAC	2.7 ms	Standard
Max Range	Mono	16	6.25 %	OPUS	9.9 ms	Maximum
Max Link density	Mono	128*	0.78 %	OPUS	15.2 ms	Reduced

IEM/IFB	Mono/ Stereo	Max links per RF carrier	Utilized % of RF carrier	Audio codec	Latency	Range
Live	Mono	16	6.25 %	SeDAC	1.6 ms	Extended
Live Link Density	Mono	32	3.13 %	SeDAC	2.7 ms	Standard
Max Range	Mono	16	6.25 %	OPUS	9.9 ms	Maximum
Max Link density	Mono	128*	0.78 %	OPUS	15.2 ms	Reduced
Live Ultra Low Latency	Stereo	4 (8 ch)	25 %	SeDAC	0.7 ms	Extended
Live Low Latency	Stereo	8 (16 ch)	12.50 %	SeDAC	1.1 ms	Extended
Live	Stereo	16 (32 ch)	6.25 %	SeDAC	1.6 ms	Standard
Live Link Density	Stereo	32 (64 ch)**	3.13 %	SeDAC	2.7 ms	Reduced

* Base Stations have 32 audio outputs, for 128 links in a single RF channel, 4 Base Stations and firmware update with cascade port function are required (future release)

** Base Stations have 32 audio inputs, for 32 stereo links (64 ch) in a single RF channel, 2 Base Stations and firmware update with cascade port function are required (future release)



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RF channels	2
Audio inputs and outputs	Input: up to 32 channels Output: up to 32 channels individually selectable from digital audio interfaces
Digital audio interfaces	Dante® Ethernet, 1 Gbit/s 2× ruggedized RJ45 (Primary and Secondary) 32 In, 32 Out, 48 kHz or 96 kHz, 16/24/32 bit MADI (AES10) 2× Expansion Slots for MADI Card OM (optical fiber multimode) or MADI Card BNC (separate accessories) 32 In, 32 Out, 48 kHz or 96 kHz, 16/24 bit Individual sample rate for each interface
Headphone output	6.3 mm TRS jack, 2 × 50 mW RMS (32 Ω, -40 dB THD, 1 kHz)
Antenna connections	4 × ruggedized RJ45, PoE supply for up to 4 DAD UHF/1G4
Antenna cable	Category 5e or higher, S/UTP (maximum 100 m)
Word clock	Input: BNC, 75 Ω Output: BNC, 75 Ω Sampling rates: 48 kHz, 96 kHz
Control	Ethernet, 1 Gbit/s, ruggedized RJ45
Cascade in / out*	2 × SFP+ cages (to be equipped with 10 Gbit/s modules)
Power supply	2 × internal redundant 100 to 240 V AC, 50/60 Hz
Power consumption	70 W
Power plug	3-pin, protection class I as per IEC/EN 60320-1
Dimensions (H × W × D with mounting elements)	44 × 483 × 373 mm (1.73" x 19.02" x 14.69")
Weight	approx. 6.3 kg (13.89 lbs) (without accessories)
Temperature	Operation: -10 °C to +50 °C (14 °F to 122 °F) Storage: -25 °C to +70 °C (-13 °F to 158 °F)
Relative humidity	25 % to 95 % (non-condensing)
Dripping and splashing liquids	The product must not be exposed to dripping and splashing liquids (IP2X)

*Software update with cascade port function required (future release)



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DIMENSIONS

