



# 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

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



# SPECTERA

## Base Station



### 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 ( $\pm 1$ dB)
Encryption	AES 256 CTR Mode exp. >10k years

#### Audio link modes

Name	IEM	Mic/ Line	Mono/ Stereo	Max links per RF carrier	Utilized % of RF carrier	Audio codec	Latency	Range
Live Ultra Low Latency	yes	-	Stereo	4 (8 ch)	25 %	SeDAC	0.7 ms	Extended
Live Low Latency	yes	-	Stereo	8 (16 ch)	12.5 %	SeDAC	1.1 ms	Extended
Live	yes	-	Stereo	16 (32 ch)	6.25 %	SeDAC	1.6 ms	Standard
Live Link Density	yes	-	Stereo	32 (64 ch)*	3.125 %	SeDAC	2.7 ms	Reduced
Raw Low Latency	-	yes	Mono	8	12.5 %	PCM	1.0 ms	Reduced
Raw	-	yes	Mono	16	6.25 %	PCM	1.6 ms	Reduced
Live Low Latency	-	yes	Mono	8	12.5 %	SeDAC	1.0 ms	Extended
Live	yes	yes	Mono	16	6.25 %	SeDAC	1.6 ms	Extended
Live Link Density	yes	yes	Mono	32	3.125 %	SeDAC	2.7 ms	Standard
Max Range	yes	yes	Mono	16	6.25 %	OPUS	9.9 ms	Maxiumum
Max Link density	yes	yes	Mono	128**	0.78125 %	OPUS	15.2 ms	Reduced

\* Two Base Stations and software update with cascade port function required (future release)

\*\* Four Base Stations and software update with cascade port function required (future release)



# SPECTERA

## Base Station

### SPECTERA Base Station

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)



# SPECTERA Base Station

## DIMENSIONS

