

# Spectralink DECT Servers and Base Stations

# Feature List

Spectralink IP-DECT Server 200/400/6500 Spectralink Virtual IP-DECT Server One Spectralink DECT Server 2500/8000 Spectralink Digital DECT Base Station Spectralink IP-DECT Base Station Spectralink DECT Repeater Spectralink External Antenna

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#### **Contact Information**

<u>US Location</u> +1 800-775-5330	<u>Denmark Location</u> +45 7560 2850	<u>UK Location</u> +44 (0) 20 3284 1536
Spectralink Corporation 2560 55th Street Boulder, CO 80301 USA	Spectralink Europe ApS Bygholm Soepark 21 E Stuen 8700 Horsens Denmark	Spectralink Europe UK 329 Bracknell, Doncastle Road Bracknell, Berkshire, RG12 8PE United Kingdom
info@spectralink.com	infoemea@spectralink.com	infoemea@spectralink.com

# **Contents**

4
8
8
11
14
16
18
21
24
25
27
28

# **Chapter 1: List of Features**

	Server 200	Server 400	Server 6500	Virtual Server One	Server 2500	Server 8000
Functionality						
AMiE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
СОТА	✓	✓	✓	✓	-	-
G.729 codec	✓	✓	✓	✓	-	-
Support of loneworker	$\checkmark$	✓	✓	✓	✓	$\checkmark$
Analog interface	-	-	-	-	$\checkmark$	$\checkmark$
DECT to DECT calls	$\checkmark$	$\checkmark$	$\checkmark$	✓	$\checkmark$	$\checkmark$
Frequency swap *	✓	✓	✓	✓	✓	✓
Messaging over MSF	$\checkmark$	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$
Internal routing when all proxies are blacklisted	<b>√</b>	✓	$\checkmark$	$\checkmark$	-	-
Radio based synchronization	-	✓	$\checkmark$	✓	✓	✓
Automatic Configuration of Radio Synchronization	-	✓	$\checkmark$	✓	-	-
LAN-based synchronization (License required)	-	✓	✓	✓	✓	<b>√</b>
Mix of Radio-based and LAN-based synchronization	-	✓	✓	✓	✓	✓
Broadcast messaging **	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Redundancy	-	-	✓	✓	-	-
Handset Sharing	✓	✓	✓	✓	✓	✓
	1 device can o	connect to 1 use	er account/SIP	account.	Up to 3 devices can connect to 1 user account/SIP account.	-

	Server 200	Server 400	Server 6500	Virtual Server One	Server 2500	Server 8000
	Login/Logout	Login/Logout only using long press 9.			Login/Logout can be done in a combination of using long press 8, turning handset on/off and removing/ replacing handset from/in charger (depending on the settings chosen).	
Hide Web GUI	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	-	-
Codecs Supported	✓	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
			See SUPPO	ORTED CODECS		
SIP VOIP support	✓	$\checkmark$	✓	✓	✓	$\checkmark$
			See SIP \	OIP SUPPORT		
Analog line support					✓	✓
	-	-	-	-	See ANALOG LINE SUPPORT	
Interoperability						
SIP - generic	✓	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$
SIP - SfB	✓	✓	✓	✓	✓	✓
SfB - PIN Auth.	✓	✓	✓	✓	-	-
SIP - CUCM	✓	✓	✓	✓	✓	✓
SIP – Ring Central	✓	$\checkmark$	$\checkmark$	-	-	-
Keyyo features	✓	✓	✓	✓	-	-
Extended Funktel support	✓	✓	$\checkmark$	✓	-	-
Interoperability	For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a> .					
Technical						
Site-based paging	✓	✓	✓	✓	-	-
Zone-based paging ***			✓	✓		
	-	-	Spectralink	upported on DECT Handsets 19C_ or newer.	- -	-
			Not support	ted on repeaters.		
Secondary username	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	-	-

	Server 200	Server 400	Server 6500	Virtual Server One	Server 2500	Server 8000
IP-DECT Base Station -	$\checkmark$	$\checkmark$	$\checkmark$	✓	$\checkmark$	$\checkmark$
Dase Station	See Spectralink IP-DECT Base Station					
Digital DECT					$\checkmark$	$\checkmark$
Base Station	-	-	-	-	See Spectralink Digital DECT Base Station	
Merge XML files from provisioning	✓	✓	✓	✓	-	-
Operation and maintenance		S	ee Spectralink	(IP-DECT Server 20	00	
System Architecture			2 0/0751			
Network			See SYSTEM	M ARCHITECTURE		
Radio Interface		SYSTEM FECTURE	-	-	-	-
Security						
DECT security step A	✓	✓	✓	✓	-	-
Web GUI HTTP and HTTPS	✓	✓	✓	<b>√</b>	✓	✓
Support for TLS in Media resource and IP-base station	<b>√</b>	✓	✓	<b>√</b>	-	-
TLS 1.3	✓	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Protocols						
XML-RPC	✓	✓	✓	✓	✓	$\checkmark$
OAM REST API	✓	✓	✓	✓	-	-
EMD messaging	-	-	-	-	✓	✓
TAP messaging	-	-	-	-	✓	✓
Provisioning	✓	✓	✓	✓	✓	✓
-			See SYSTEM	M ARCHITECTURE		
Protocol Support	✓	✓	✓	✓	✓	✓
			See SYSTEM	M ARCHITECTURE		

Server	Server	Server	Virtual	Server	Server
200	400	6500	Server One	2500	8000

<sup>\*</sup> **Note:** Besides the Frequency Swap License, a special Spectralink DECT Handset 7212 (part no. 02610004) with a special configuration (and compliance to be compatible with frequency swap) is also required.

• MSF II: 19 characters

• MSF III: 55 characters + Advanced color icon Support

<sup>\*\*</sup> Following is supported:

<sup>\*\*\*</sup> Zone based paging is built on the DECT Standard for Location Area Level (LAL).

# **Chapter 2: Technical Specifications**

Below you will find technical specifications of the different Spectralink Server Solution components:

- Spectralink IP-DECT Server 200
- Spectralink IP-DECT Server 400
- Spectralink IP-DECT Server 6500
- Spectralink DECT Server 2500
- Spectralink DECT Server 8000
- Spectralink Digital DECT Base Station
- Spectralink IP-DECT Base Station
- Spectralink DECT Repeater
- Spectralink External Antenna

# Spectralink IP-DECT Server 200

#### PROTOCOL SUPPORT

- Session Initiated Protocol (SIP)
- Broadcast Messaging
- Message Service Functions (MSF)
- XML-RPC
- OAM-REST-API

#### SIP VOIP SUPPORT

- Basic call
- CLIP
- Call Hold
- Call Transfer
- Call Waiting
- Music on Hold (MOH)

## **OPERATION AND MAINTENANCE**

- Web GUI for administration and maintenance of the entire infrastructure
- HTTP with digest authentication
- HTTPS

- Syslog
- SNMP

#### SYSTEM ARCHITECTURE

- The Spectralink IP-DECT Server 200 is both a radio unit and a SIP integration unit to the host SIP Call Control / UC platform.
- 1 x Spectralink IP-DECT Server 200 and up to 3 x Spectralink DECT Repeaters (2 or 4 channel multi-cell)
  - 12 wireless users/six simultaneous calls

#### **SUPPORTED CODECS**

- G.711 A-law and μ-law
- G.726 (32 kbps 4 bit ADPCM)
- G.729

#### **NETWORK**

- 10/100 Mbps Ethernet port
- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization using Network Time Protocol (NTP)
- LED status indication

#### **PROVISIONING**

- Configuration
- User data
- Server firmware
- Handset firmware

### **RADIO INTERFACE**

- RF output 20 to 24 dBm at antenna connection
- Sensitivity: typical -90 dBm measured at antenna connection at BER = 0.001
- Average transmit power: typical 5mW/ch (US) or 10mW/ch. (EU)
- Peak transmit power: typical 125mW (US) or 250mW (EU)
- Typical range:
  - o Indoor: 20 50 m. (65 165 ft.)
  - o Outdoor: 300 m. (1000 ft.)
- Full slot DECT radio (12 channels)

Possible to connect external antenna (Only Spectralink External Antenna can be used)

# ELECTRO MAGNETIC COMPATIBILITY (EMC) APPROVALS (REGULATORY STANDARDS)

- EMC: EN 301 489 1
- EMC: EN 301 489 6
- FCC RULES, FCC PART15
- ANSI C63.4

### SAFETY (REGULATORY STANDARDS)

- UL60950-1
  - CAN/CSA-C22.2 No. 60950-1
  - o AS/NZS 60950-1
- Safety: EN 60950 1

#### **DECT RADIO APPROVAL**

• EN 301 406

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 10 40° C (50 104° F)
- Storage temperature: -50 70° C (-58 158° F)
- Relative humidity: between 20% and 80% (non-condensing)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

### **ELECTRICAL REQUIREMENTS**

- Power over Ethernet (IEEE 802.3af), mode A & B
- PoE Class 1 device
- Typical power consumption: 3 W per unit
- External power outlet (power supply must be ordered separately)
- External antenna connection (Only Spectralink External Antenna can be used)

#### PHYSICAL CHARACTERISTICS

- Size: 100 x 100 x 43 mm (3.94 x 3.94 x 1.69 in.)
- Weight: 120 gr. (4.2 oz)
- Black (Pantone Black)

- Wall-mountable, indoor
- Can be mounted upside down

#### **INTEROPERABILITY**

For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a>.

# Spectralink IP-DECT Server 400

#### PROTOCOL SUPPORT

- Session Initiated Protocol (SIP)
- Broadcast Messaging
- Message Service Functions (MSF)
- XML-RPC
- OAM-REST-API

#### SIP VOIP SUPPORT

- Basic call
- CLIP
- Call Hold
- Call Transfer
- Call Waiting
- Music on Hold (MOH)

#### **OPERATION AND MAINTENANCE**

- Web GUI for administration and maintenance of the entire infrastructure
- HTTP with digest authentication
- HTTPS
- Syslog
- SNMP

#### SYSTEM ARCHITECTURE

- The Spectralink IP-DECT Server 400 is both a radio unit and a SIP integration unit to the host SIP Call Control / UC platform. Additionally, it controls and handles the Spectralink IP-DECT Base Stations.
- Single-cell configuration:
  - 1 x Spectralink IP-DECT Server 400 and up to 3 x Spectralink DECT Repeaters
     (2 or 4 channel multi-cell)

- 12 wireless users/six simultaneous calls
- Optional 60 users \*



#### Note:

\* The Spectralink IP-DECT Server 400 does have 12 channels, but is limited to 6 channels in basic version.

- Multi-cell configuration:
  - 1 x Spectralink IP-DECT Server 400, up to 9 x Spectralink IP-DECT Base Stations and up to 3 x Spectralink DECT Repeaters (2 or 4 channel multicell) connected on each Spectralink IP-DECT Server or Spectralink IP-DECT Base Station \*\*.
  - o 12 wireless users/six simultaneous calls
  - o Optional 60 users/24 simultaneous calls



#### Note:

\*\* The Spectralink IP-DECT Base Station does have 12 channels, but only 11 can be used when synchronizing over the air.

#### SUPPORTED CODECS

- G.711 A-law and μ-law
- G.726 (32 kbps 4 bit ADPCM)
  - o G.729

#### **NETWORK**

- 10/100 Mbps Ethernet port
- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization using Network Time Protocol (NTP)
- LED status indication

#### **PROVISIONING**

- Configuration
- User data
- Server firmware
- Base station firmware (License required)
- Handset firmware (License required)

#### RADIO INTERFACE

• RF output 20 to 24 dBm at antenna connection

- Sensitivity: typical -90 dBm measured at antenna connection at BER = 0.001
- Average transmit power: typical 5mW/ch (US) or 10mW/ch. (EU)
- Peak transmit power: typical 125mW (US) or 250mW (EU)
- Typical range:
  - o Indoor: 20 50 m. (65 165 ft.)
  - o Outdoor: 300 m. (1000 ft.)
- Full slot DECT radio (12 channels)
- Possible to connect external antenna (Only Spectralink External Antenna can be used)

# ELECTRO MAGNETIC COMPATIBILITY (EMC) APPROVALS (REGULATORY STANDARDS)

- EMC: EN 301 489 1
- EMC: EN 301 489 6
- FCC RULES, FCC PART15
- ANSI C63.4

## SAFETY (REGULATORY STANDARDS)

- UL60950-1
  - o CAN/CSA-C22.2 No. 60950-1
  - o AS/NZS 60950-1
- Safety: EN 60950 1

#### **DECT RADIO APPROVAL**

EN 301 406

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 10 40° C (50 104° F)
- Storage temperature: -50 70° C (-58 158° F)
- Relative humidity: between 20% and 80% (non-condensing)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### **ELECTRICAL REQUIREMENTS**

- Power over Ethernet (IEEE 802.3af), mode A & B
- PoE Class 1 device
- I Typical power consumption: 3 W per unit

- I External power outlet (power supply must be ordered separately)
- I External antenna connection (Only Spectralink External Antenna can be used)

#### PHYSICAL CHARACTERISTICS

• Size: 100 x 100 x 43 mm (3.94 x 3.94 x 1.69 in.)

• Weight: 120 gr. (4.2 oz)

• Grey-white (NCS 0502-Y)

Wall-mountable, indoor

Can be mounted upside down

#### **INTEROPERABILITY**

For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a>.

# Spectralink IP-DECT Server 6500

#### PROTOCOL SUPPORT

- Session Initiated Protocol (SIP)
- Broadcast Messaging
- Message Service Functions (MSF)
- XML-RPC
- OAM-REST-API

#### SIP VOIP SUPPORT

- Basic call
- CLIP
- Call Hold
- Call Transfer
- Call Waiting
- Music on Hold (MOH)

#### **OPERATION AND MAINTENANCE**

- Web GUI for administration and maintenance of the entire infrastructure
- Provisioning, maintenance, and supervision of all infrastructure components and Spectralink 7000 handsets in the solution
- HTTP with digest authentication

- HTTPS
- Syslog
- SNMP

#### SYSTEM ARCHITECTURE

- The Spectralink IP-DECT Server 6500 is a control unit acting as a SIP integration unit to the host SIP Call Control / UC (IP-PBX) platform, which also controls and handles all other infrastructure elements
- Max. no. of:
  - o Spectralink IP-DECT Base Stations: 1024
  - Simultaneous calls on each Spectralink IP-DECT Base Station: 12
  - Spectralink DECT Repeater on each Spectralink IP-DECT Base Station: 3
  - Spectralink DECT Media Resources: 32
  - o Simultaneous calls with one Spectralink DECT Media Resource (G.711): 32
  - Simultaneous calls with 32 Spectralink DECT Media Resources: 1024
- Registered Spectralink 7000 handsets: scalable to 4096 stepwise: 30 users, 150 users, 500 users, 1500 users, 4096 users

#### **SUPPORTED CODECS**

- G.711 A-law and μ-law
- G.726 (32 kbps 4 bit ADPCM)
- G.729

### **NETWORK**

- 10/100 Mbps Ethernet port
- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization using Network Time Protocol (NTP)

#### **PROVISIONING**

- Configuration
- User data
- Server firmware
- Base station firmware (License required)
- Handset firmware (License required)

#### APPROVALS (REGULATORY STANDARDS)

• EN 55022

- EN 55024: A, A2
- FCC RULES, CRF47, PART15, class B digital device

### **SAFETY (REGULATORY STANDARDS)**

- UL 60950-1 CAN/CSA-C22.2 No. 60950-1-03
- Safety: EN 60950 1

## **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 10 40° C (50 104° F)
- Storage temperature: -50 70° C (-58 158° F)
- Relative humidity: between 20% and 80% (non-condensing)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### **ELECTRICAL REQUIREMENTS**

• The supplied power for unit must be 110 to 240 AC nominal, 50/60 Hz

#### PHYSICAL CHARACTERISTICS

- Size: 440 x 199 x 44 mm (17.3 x 7.8 x 1.7 in.)
- Weight: 2,354 gr. (83.0 oz)
- Grey
- Rack and wall-mountable, indoor
- IP20

#### **INTEROPERABILITY**

• For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a>.

# Spectralink Virtual IP-DECT Server One

#### PROTOCOL SUPPORT

- Session Initiated Protocol (SIP)
- Broadcast Messaging
- Message Service Functions (MSF)
- XML-RPC
- OAM-REST-API

#### SIP VOIP SUPPORT

- Basic call
- CLIP
- Call Hold
- Call Transfer
- Call Waiting
- Music on Hold (MOH)

#### **OPERATION AND MAINTENANCE**

- Web GUI for administration and maintenance of the entire infrastructure
- Provisioning, maintenance, and supervision of all infrastructure components and Spectralink 7000 handsets in the solution
- HTTP with digest authentication
- HTTPS
- Syslog
- SNMP

#### SYSTEM ARCHITECTURE

- The Spectralink Virtual IP-DECT Server One is a control unit acting as a SIP integration unit to the host SIP Call Control / UC (IP-PBX) platform, which also controls and handles all other infrastructure elements
- Max. no. of:
  - Spectralink IP-DECT Base Stations: 2048
  - Simultaneous calls on each Spectralink IP-DECT Base Station: 12
  - Spectralink DECT Repeater on each Spectralink IP-DECT Base Station: 3
  - Spectralink DECT Media Resources: 32 each with 32 channels
  - Spectralink Virtual IP-DECT Media Resources: 16 each with up to 64 channels
  - Simultaneous calls with one Spectralink DECT Media Resource (G.711): 32
  - Simultaneous calls with 32 Spectralink DECT Media Resources: 1024
  - Simultaneous calls with one Spectralink Virtual IP-DECT Media Resource (G.711): 64
  - Simultaneous calls with 16 Spectralink Virtual IP-DECT Media Resource: 1024
- Registered Spectralink 7000 handsets: scalable to 4096 stepwise: 30 users, 150 users, 500 users, 1500 users, 4096 users

### **SUPPORTED CODECS**

- G.711 A-law and μ-law
- G.726 (32 kbps 4 bit ADPCM)

• G.729

#### **NETWORK**

- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization

#### **PROVISIONING**

- Configuration
- User data
- Server firmware
- Base station firmware (License required)
- Handset firmware

#### **INTEROPERABILITY**

For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a>.

# Spectralink DECT Server 2500

## **ANALOG LINE SUPPORT**

- CLIP FSK Bellcore
- DTMF CLIP
- Loop break
- DTMF transmit
- Dial and busy tone detect

#### PROTOCOL SUPPORT

- Session Initiated Protocol (SIP)
- Broadcast Messaging
- Message Service Functions (MSF)
- Event Message Description (EMD)
- Telocator Alphanumeric Protocol 1.8 (TAP)
- XML-RPC

#### SIP VOIP SUPPORT

Basic call

- CLIP
- Call Hold
- Call Transfer
- Call Waiting
- Music on Hold (MOH)

#### **OPERATION AND MAINTENANCE**

- Web GUI for administration and maintenance of the entire infrastructure
- HTTP with digest authentication

#### SYSTEM ARCHITECTURE

- Stable system core based on Linux
- Faster access to standard protocols
- Room for one CPU card without link and three interface cards
- Max. no. of:
  - Registered Spectralink DECT Handsets (VoIP interface): recommended to keep below 150, but more handsets can be subscribed if low telephone traffic on server.
  - Registered Spectralink DECT Handsets (analogue interface): 32
  - Spectralink Digital DECT Base Stations: up to eight per base station interface card
  - Spectralink DECT Repeaters: 3 per base station
  - Spectralink IP-DECT Base Station option: 64 (each active call takes up two channels on the media resource card)
- Interface Cards:
  - AB08/16 interface card: 8/16 analog telephone lines
  - BIF08 interface card: drives up to eight base stations
  - MR32 interface card: media resource card for 32 VoIP connections

#### SUPPORTED CODECS

- G.711 A-law and μ-law
- G.726 (32 kbps 4 bit ADPCM)

#### **NETWORK**

- 10/100 Mbps Ethernet port
- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization
- Event logging

#### **PROVISIONING**

- Configuration
- User data
- Server firmware
- Base station firmware (License required)
- Handset firmware (License required)

## APPROVALS (REGULATORY STANDARDS)

- EN 55022, Class A
- EN 55024: A, A2
- FCC RULES, CRF47, PART15, class B digital device
- CISPR 22
- ICES-003
- CAN/CSA-CEI/IEC CISPR 22

#### SAFETY (REGULATORY STANDARDS)

- UL 60950-1 CAN/CSA-C22.2 No. 60950-1-03
- Safety: EN 60950 1

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 10 40° C (50 104° F)
- Storage temperature: -30° 70° C (-22° 158° F)
- Relative humidity: between 20% and 80% (non-condensing)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### **ELECTRICAL REQUIREMENTS**

- Power adapter characteristics: DE 18.1 VDC/3.16 A
- The supplied power for AC adaptor power supply must be 110–240 VAC nominal, 50/60 Hz.

### PHYSICAL CHARACTERISTICS

- Size: 177 x 194 x 328 mm (7 x 8 x 13 in.)
- Weight: 1.16 kg (2.56 lb) excl. power supply
- Wall-mountable, indoor

#### **INTEROPERABILITY**

• For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a>.

# Spectralink DECT Server 8000

#### **ANALOG LINE SUPPORT**

- CLIP FSK Bellcore
- DTMF CLIP
- Loop break
- DTMF transmit
- Dial and busy tone detect

#### PROTOCOL SUPPORT

- Session Initiated Protocol (SIP)
- Broadcast Messaging
- Message Service Functions (MSF)
- Event Message Description (EMD)
- Telocator Alphanumeric Protocol 1.8 (TAP)
- XML-RPC

#### SIP VOIP SUPPORT

- Basic call
- CLIP
- Call Hold
- Call Transfer
- Call Waiting
- Music on Hold (MOH)

### **OPERATION AND MAINTENANCE**

- Web GUI for administration and maintenance of the entire infrastructure
- HTTP with digest authentication

#### SYSTEM ARCHITECTURE

- Stable system core based on Linux
- Faster access to standard protocols

- CPU card without link option has built-in Media Resource for 8 Channels
- Max. no. of:
  - Registered Spectralink DECT Handsets: 4095
  - o Simultaneous calls: 1,024
  - Simultaneous calls per media resource (G.711 & G. 726): 32
  - Spectralink Digital DECT Base Stations: 512
  - o Spectralink DECT Repeaters: 3 per base station
  - Spectralink IP-DECT Base Station option: 1024 (each active call takes up two channels on the media resource card)
  - o Linked servers: 8
  - o Interface card in one linked system: 64
- Interface Cards:
  - AB08/16 interface card: 8/16 analog telephone lines
  - BIF08 interface card: drives up to eight base stations
  - MR32 interface card: media resource card for 32 VoIP connections

#### **SUPPORTED CODECS**

- G.711 A-law and μ-law
- G.726 (32 kbps 4 bit ADPCM)

#### **NETWORK**

- 10/100 Mbps Ethernet port
- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization
- Event logging

#### **PROVISIONING**

- Configuration
- User data
- Server firmware
- Base station firmware (License required)
- Handset firmware (License required)

### APPROVALS (REGULATORY STANDARDS)

- EN 55022, Class A
- EN 55024: A, A2
- FCC RULES, CRF47, PART15, class B digital device

- CISPR 22
- ICES-003
- CAN/CSA-CEI/IEC CISPR 22

#### **SAFETY (REGULATORY STANDARDS)**

- UL 60950-1 CAN/CSA-C22.2 No. 60950-1-03
- UL File No: E170690
- IEC 60950-1
- Safety: EN 60950 1
- AS/NZS 60950-1

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 32° 104° F (0 40° C)
- Storage temperature: -22° 158° F (-30° 70° C)
- Relative humidity: between 20% and 80% (non-condensing)
- Operating altitude: Up to 9,483 ft. (3,000 m.)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### **ELECTRICAL REQUIREMENTS**

- Power adapter characteristics: De 19 VDC /9.48 A
- The supplied power for AC adaptor power supply must be 110–240 VAC nominal, 50/60 Hz.

### PHYSICAL CHARACTERISTICS

- Size: 177 x 422 x 328 mm (7 x 17 x 13 in.)
- Weight: 5.34 kg (11.8 lb) excl. power supply
- Up to 26.5 lb (12 kg) incl. adapters
- The shelf is four units high in rack

#### **INTEROPERABILITY**

For information about supported Call Control/Unified Communications (UC) (PBX and IP-PBX) platforms, visit <a href="http://support.spectralink.com/">http://support.spectralink.com/</a>.

# Spectralink Digital DECT Base Station

#### **SERVER CONNECTION**

- LED status indication
- 2 or 4 wire connection to Spectralink DECT Server for max. 4 or 8 simultaneous calls.

#### **RADIO INTERFACE**

- RF output 20 to 24 dBm at antenna connection
- Sensitivity: typical -90 dBm measured at antenna connection at BER = 0.001
- Average transmit power: typical 5mW/ch (US) or 10mW/ch. (EU)
- Peak transmit power: typical 125mW (US) or 250mW (EU)
- Typical range:
  - o Indoor: 20 50 m. (65 165 ft.)
  - o Outdoor: 300 m. (1000 ft.)
- Full slot DECT radio (12 channels)
- Possible to connect external antenna (Only Spectralink External Antenna can be used)

# ELECTRO MAGNETIC COMPATIBILITY (EMC) APPROVALS (REGULATORY STANDARDS)

- EMC: EN 301 489 1
- EMC: EN 301 489 6
- FCC RULES, FCC PART15, SubpartD; RSS-213
- IC Rules RSS213 Issue 2

#### SAFETY (REGULATORY STANDARDS)

- UL 60950-1 CAN/CSA-C22.2 No. 60950-1-03
- Safety: EN 60950 1

#### **DECT RADIO APPROVAL**

EN 301 406

#### **ELECTRICAL REQUIREMENTS**

- Phantom powered from DECT Server ower the twisted pair.
- Typical power consumption: 1 W per unit
- External antenna connection (Only Spectralink External Antenna can be used)

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 10 40° C (50 104° F)
- Storage temperature: -50 70° C (-58 158° F)
- Relative humidity: between 20% and 80% (non-condensing)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### PHYSICAL CHARACTERISTICS

- Size: 100 x 100 x 43 mm (3.94 x 3.94 x 1.69 in.)
- Weight: 120 gr. (4.2 oz)
- Grey-white (NCS 0502-Y)
- Wall-mountable, indoor
- Can be mounted upside down



#### Note:

The Spectralink Digital DECT Base Station is regulatory-certified for frequency bands used in North America, Europe, Australia and New Zealand.

# Spectralink IP-DECT Base Station

#### SYSTEM ARCHITECTURE

• The Spectralink IP-DECT Base Station does have 12 channels, but only 11 can be used when synchronizing over the air.

#### **NETWORK**

- 10/100 Mbps Ethernet port
- Manual or dynamic host configuration protocol (DHCP)
- Time and date synchronization from the Spectralink DECT Server
- Event logging
- LED status indication

#### **PROVISIONING**

• Base station firmware (License required on server)

#### **RADIO INTERFACE**

- RF output 20 to 24 dBm at antenna connection
- Sensitivity: typical -90 dBm measured at antenna connection at BER = 0.001

- Average transmit power: typical 5mW/ch (US) or 10mW/ch. (EU)
- Peak transmit power: typical 125mW (US) or 250mW (EU)
- Typical range:
  - o Indoor: 20 50 m. (65 165 ft.)
  - o Outdoor: 300 m. (1000 ft.)
- Full slot DECT radio (12 channels)
- Possible to connect external antenna (Only Spectralink External Antenna can be used)

# ELECTRO MAGNETIC COMPATIBILITY (EMC) APPROVALS (REGULATORY STANDARDS)

- EMC: EN 301 489 1
- EMC: EN 301 489 6
- FCC RULES, FCC PART15, SubpartD; RSS-213
- IC Rules RSS213 Issue 2

## **SAFETY (REGULATORY STANDARDS)**

- UL60950-1
  - o CAN/CSA-C22.2 No. 60950-1
  - o AS/NZS 60950-1
- Safety: EN 60950 1

#### **DECT RADIO APPROVAL**

• EN 301 406

#### **ELECTRICAL REQUIREMENTS**

- Power over Ethernet (IEEE 802.3af)
- PoE Class 1 device
- Typical power consumption: 2 W per unit
- External power supply option available
- External antenna connection (Only Spectralink External Antenna can be used)

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 10 40° C (50 104° F)
- Storage temperature: -50 70° C (-58 158° F)
- Relative humidity: between 20% and 80% (non-condensing)

 Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### PHYSICAL CHARACTERISTICS

- Size: 100 x 100 x 43 mm (3.94 x 3.94 x 1.69 in.)
- Weight: 120 gr. (4.2 oz)
- Grey-white (NCS 0502-Y)
- Wall-mountable, indoor
- Can be mounted upside down



#### Note:

The Spectralink IP-DECT Base Station is regulatory-certified for frequency bands used in North America, Europe, Australia and New Zealand.

# Spectralink DECT Repeater

#### SYSTEM CAPACITY WITHOUT EXTERNAL ANTENNA

• Max. number of traffic channels: two or four

#### SYSTEM CAPACITY WITH EXTERNAL ANTENNA

- Max. number of traffic channels: two or four
- Distance from base station to repeater with external antenna: up to 1,950 m. (6398 ft.)

#### RADIO INTERFACE

- RF output 20 to 24 dBm at antenna connection
- Sensitivity: typical -90 dBm measured at antenna connection at BER = 0.001
- Average transmit power: typical 5mW/ch (US) or 10mW/ch. (EU)
- Peak transmit power: typical 125mW (US) or 250mW (EU)
- Typical range:
  - o Indoor: 20 50 m. (65 165 ft.)
  - o Outdoor: 300 m. (1000 ft.)
- Full slot DECT radio (12 channels)
- Possible to connect external antenna (Only Spectralink External Antenna can be used)

#### **DECT RADIO APPROVAL**

EN 301 406

• FCC RULES PART 15 / Subpart D, RSS-213

# ELECTRO MAGNETIC COMPATIBILITY (EMC) APPROVALS (REGULATORY STANDARDS)

• EMC: EN 301 489 - 1

• EMC: EN 301 489 - 6

## **SAFETY (REGULATORY STANDARDS)**

- UL 60950-1 CAN/CSA-C22.2 No. 60950-1-03
- Safety: EN 60950 1

#### **ELECTRICAL REQUIREMENTS**

- Maximum power consumption: 1.62W (Max. 2W)
- The power supply is 9VDC, 180mA.

#### **ENVIRONMENTAL CONDITIONS**

- Operating temperature: 0 55° C (32 131° F)
- Storage temperature: -50 70° C (-58 158° F)
- Relative humidity: between 20% and 80% (non-condensing)
- Compliance with the requirements of EU directive 2015/863/EU (ROHS) and 2012/19/EU (WEEE)

#### PHYSICAL CHARACTERISTICS

- Size: 100 x 100 x 43 mm (3.94 x 3.94 x 1.69 in.)
- Weight: 112.9 gr. (4 oz.)
- Grey-white (NCS 0502-Y)
- Wall-mountable, indoor

# Spectralink External Antenna

#### **ELECTRICAL PROPERTIES**

• Frequency range: 1880-1930 MHz

• Impedance: 50 Ω (DC-path to ground)

• Polarization: RHCP

Gain: 7.5 - 8.0 dB

- 3 dB beamwidth horizontal: > 62°
- 3 dB beamwidth vertical: > 62°
- Front to back ratio: > 8 dB
- Return loss: < 15 dB
- Connector: SMB male
- One meter cable included

## **ENVIRONMENTAL CONDITIONS**

- Operating temperature: -20° 55° C (-4° 131° F)
- Storage temperature: -40° 85° C (-40° 185° F)

### PHYSICAL CHARACTERISTICS

- Size: 100 x 100 x 42 mm (4 x 4 x 1.7 in.)
- Weight: 120 gr. (4.2 oz.)
- Only for indoor usage

\*\*\*\*END OF DOCUMENT\*\*\*\*