

# Mitel SIP-DECT - Single Cell

Adding mobility in the office, simply and effectively

## Key Features

- Single cell DECT mobility solution for MiVoice Business and MiVoice Office 250 communications platforms
- Provides mobility for users within specific areas of any office or building
- Supports up to 20 x phones from a single base station, enabling more users to be added without additional cabling for desktop phones
- Highly secure encrypted wideband voice technology with 5 x simultaneous calls
- Add up to 3 x repeaters for additional coverage



Mitel RFP 12 IP Single Base Station

Mitel 112 DECT Phone

Mitel SIP-DECT – Single Cell provides on-site mobility for MiVoice Business and MiVoice Office 250 installations where users must be contactable wherever they are within the office.

The Mitel SIP-DECT – Single Cell solution is comprised of the Mitel RFP 12 IP Single DECT base station, up to 20 x Mitel 112 DECT Phones plus up to 3 x Mitel RFP 12 IP Repeaters, providing a fully integrated mobility solution for small offices or for specific areas within larger offices or buildings.

It gives users the freedom and mobility to move away from their desk within their office or adjacent offices. Working with MiVoice Business and MiVoice Office 250 it provides an easily implemented mobility solution for small and medium business and enterprise markets.

The solution has a broad appeal across a number of vertical markets. Customers who require a low cost cordless handset solution will appreciate the simplicity and the range provided by the DECT technology for personal area mobility. In the hospitality market, hotel guests will appreciate the convenience of additional cordless phone extensions in their rooms, while IT staff will appreciate the cost savings of servicing an entire room or suite of rooms with a single LAN drop.

The solution is ideal for users in retail markets, such as stores or car dealerships, health care locations, such as clinics, dental or medical offices, and small businesses who only require a small number of cordless handsets to augment their MiVoice Business or MiVoice Office 250 platform. By leveraging the Dynamic Extension capabilities of the MiVoice Business and MiVoice Office 250 communications platforms, customers are able to “twin” a Mitel 112 DECT Phone with a MiVoice 5300 IP Phone, providing an integrated user experience at the desktop. The cordless Mitel 112 DECT Phone is perfect for users who want the convenience of a cordless handset but need to be able to access more telephony features, such as caller ID, call transfer, conferencing, etc. while away from their desk. And because the phone is supported behind the MiVoice Border Gateway (Mitel Teleworker Solution), it can be used as a Teleworker device, making it even more convenient.

## Mitel 112 DECT Phone

### FEATURES INCLUDE:

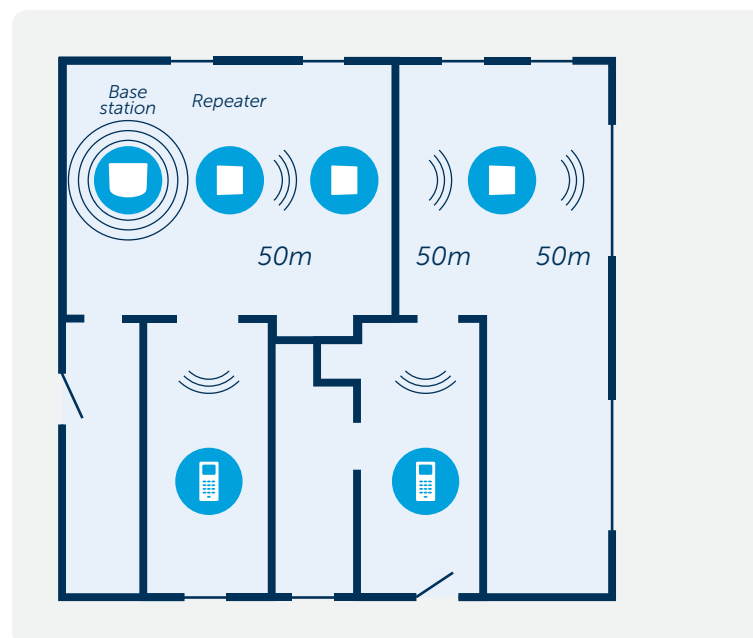
- Color, illuminated 1.44" display (128 x 128) with auto dimming
- Wideband audio support (G.722) handset, headset and speakerphone
- 21 keys including dial pad, menu, navigation, softkeys, answer and end keys
- Two-line capability (e.g. answer call on one line, place that call on hold and initiate call on second line)
- Supports Dynamic Extension on MiVoice Business Platform and Dynamic Extension Express on MiVoice Office 250 Platform
- Menu Key provides graphical options for Contacts, Settings, Messages, Call Logs, Connectivity and Audio features
- Configurable high-visibility LEDs for call indication, message waiting, missed calls and battery warning
- Settings allow users to adjust audio preferences, ringer melodies, telephony functions, call forwarding options, and to access system and network settings
- Message Key provides access to voice mail box and displays softkey prompts for voice mail functions
- Call Logs displays up to 20 call entries (all, missed, incoming, outgoing) with a date and time stamp
- Contacts List: Stores and manages personal contacts and allows speed dials for contacts to be created or groups of contacts to be created
- Speakerphone for handsfree capability, with adjustable volumes
- Five polyphonic ring tones
- Distinctive ringing based on Calling Line ID
- Display features time and date, user name, connection status, battery status, call log and options softkeys
- Multiple languages support: English, French, Spanish, German, Italian, Dutch, Portuguese, Danish, Swedish, Turkish, Polish
- Supports Conferencing, Call Transfer, Call Waiting, Call Forwarding, Hold and many more SIP telephony features from the MiVoice Business and MiVoice Office communications solutions
- Hotel Mode provides call logs suppression, phone book lock, Settings lock, and suppresses tones and lights on Handset during upgrades or reboots
- Supports operating time of 7 hours talk / 75 hours standby
- Ringer and speaker volume controls including mute
- Low battery and low coverage audible warnings
- Standard headset support (3.5 mm jack)
- Message waiting indicator (missed calls, voice mail)
- Hearing Aid Compatible (HAC) handset
- Firmware download over the air
- Desktop charger included

### MITEL RFP 12 IP SINGLE

- The Mitel RFP 12 IP Single acts as a DECT base station for the Mitel 112 DECT Phone. It provides IP DECT to SIP gateway functionality. It is a 6-slot base station designed for indoor deployment and provides superior HD-audio coverage in a given limited area.
- Supports up to 20 Mitel 112 DECT Phones
- Five simultaneous calls, narrowband G.711 and wideband G.722 and four compressed G.729
- Supports up to three Mitel RFP 12 IP Repeaters
- 10BASE-T RJ45 Ethernet port
- Wall Mountable
- Configurable via web based configuration interface

### MITEL RFP 12 IP REPEATER

- The Mitel RFP 12 IP Repeater extends the range of the RFP 12 IP Single base station, with a maximum of 3 RFP 12 IP Repeaters being connected in a daisy-chain configuration. The RFP 12 IP Repeater can also be utilized wherever there is a need to increase limited coverage or improve reception in remote areas. Features include:
- Handling of 5 active narrowband calls simultaneously
- Handling of 2 active wideband calls simultaneously
- Supports automatic handover of calls between Repeaters
- Maximum of 3 connected to the RFP 12 IP Single
- Worldwide DECT support
- DECT encryption
- Wall Mountable



Daisy chain repeaters up to three in a line

## Mitel 112 DECT Phone Specifications

Display	
Type	1.44" TFT color LCD (128x128), 64k colors
Illuminated	Yes, backlit
Number of lines	1 line status 6 lines for content (menus e.g.) 1 line for soft keys
Number of characters per text line	16
Character set	ISO 8859-1 or Unicode Standard 4.1
LED Indicators	
Message Waiting	Yes, Red
Missed Calls	Yes, Green
Keys	
Number of Keys	21 keys including 4 navigation and a confirmation key
Keypad	12 keys: 0 - 9, * and #
Off hook	1 key: Off hook and call log access from idle
On hook / power on/off	1 key: Power on/off
OK-key/Confirmation-key	1 key: Confirmation key and menu key from idle
Up/Down Navigation	Yes
Left/Right Navigation	Yes
Menu	Yes
Side keys for volume	No
Softkeys	2
Keylock	Yes (long press at * key)
Ringer mute	Yes (long press at # key)
Voice mail key	Yes (long press at 1 key)
Volume Up / Down	Yes
Hardware Features	
Battery type	2pcs NiMH AAA, rechargeable batteries
Battery capacity	600 mAh
Speakerphone	Yes
Headset connector	3.5mm standard
Charging terminals	2 fixed
Performance Features	
Talk time (NB):	Min. 8 hours
Talk time (WB):	Min. 6 hours
Standby time:	Min. 75 hours
Charge time (0% - 100%)	Max. 10 hours

## Mitel 112 DECT Phone Specifications (cont.)

Audio features	
Handset Ringer volume	Yes, 6 levels
Earpiece volume	Yes, 6 levels
Headset volume	Yes, 6 levels
Loudspeaker volume	Yes, 6 levels
Adjustable ringer volume	Yes, 6 levels, including Silent
Ringer melody	6 selectable, polyphonic
Key tones	On/Off
Coverage warning	On/Off
MWI warning	On/Off
Phone Mute	By long key press at # key
Menu Settings / Indicators	
Battery indication	Yes
Confirmation for menu selection	Yes
Coverage warning	Yes
Key click	Yes
Voice mail message waiting	Yes – Icon based
Ringer melody types – distinctive ringing	Depending on the type of the incoming call it is possible to select a different ringer melody. The following call types (call class) are distinguished: Internal Call VoIP Call
Automatic encryption (secure calls)	Yes – according to DECT standard
Call duration display	Yes Note: Only displayed at the end of call
Missed call log	Yes
Call reject option	Yes
Calling Line Identification (CLID)	Yes
Calling name support	Yes – when matching with local phonebook or when received from the RFP 12 IP Single Base Station
Date / time display	Yes
Date / time stamp logged calls / messages	Yes
Display update/refresh	When the DECT system provides (updated) display information then the handset will use this info to update the handset's display
Headset connection (incl. microphone)	Yes
Illuminated display	Yes
Illuminated keyboard	No
Key click on/off	Yes
Language Support	English, French, Spanish, German, Italian, Dutch, Portuguese, Danish, Swedish, Turkish, Polish
Loudspeaker for monitoring / handsfree	Yes
Microphone mute	Yes
Last number redial list	Yes, at least redial option from last called number
Call log list	Last 20 numbers including all missed, outgoing and incoming calls.
Pre-dial number preparation	Yes, edit before dial
Shared phone book in base	Phonebook database with 3000 entries are stored in RFP 12 IP Single Base Station. Up to 20 handsets can access and share the phonebook database.
Recall / hold	Yes
Removable belt-clip	No
Ringer mute during call (silence)	Yes
Ringer on / off	Yes
Silent charging	Yes
Trembler/Vibrator	No

## Mitel 112 DECT Phone Specifications (cont.)

<b>Handset Call Features</b>	
Speed dial option	Yes
Number of Speed Dials	8 ( 2 – 9 keys)
Voice mail configuration	Long key press on key 1
Hands-free activation	After call established by hook off key (swap between earpiece and handsfree)
Caller ID	Yes
Call Logs	20, All, Answered, Dialed, Missed
Contacts	Name and Number
Contact size	50 entries
Call Waiting	Yes
Hold / Retrieve	Yes (by soft-key)
Call Deflection	No
Call Transfer, Blind	Yes
Call Transfer, Attended	Yes
Number of simultaneous calls/Handset	2, only one on hold
Multi line	Yes (by left navigation key)
Call Swap	Yes (by right navigation key)
Easy Redial	Yes
<b>Time and Date Menu</b>	
Set time	Yes
Time format	AM / PM or 24h
Set date	Yes
Daylight Savings	On /Off
Status menu	List: Software version, IPEI, MAC address
<b>Special Handset Features</b>	
IP Search	Yes
<b>RF</b>	
DECT Frequency Bands	1880 – 1900 MHz (EMEA) 1920 – 1930 MHz (USA) (DECT 6.0) Auto detection in handset
Output Power	<250 mW (for USA < 140mW)
Antenna	1
<b>Software Updates</b>	
Downloadable	Yes, via air interface with operation during upgrade
<b>DECT</b>	
Standard DECT interface	Yes
Wideband Audio (HD)	Yes, G.722 (HD voice)
Narrowband Audio:	G.726
<b>Others</b>	
HAC compliant	Yes
Country Support	EU DECT covering European Union countries US DECT covering United States and Canada AUS DECT covering Australia and New Zealand Note: The handset can be configured for EU, US or LATAM operation via software settings.
Class B Support	Yes
<b>Handset Charger Features</b>	
LED on charger	No
Separate adaptor	No
Switch Mode adaptor	Yes, EUP II approved
Multi-plug adaptor	Yes (NA, UK, EU, Aus), Optional

## Mitel RFP 12 IP Single Specifications

Interfaces																											
Power	Input: 100-240 VAC 50-60Hz (90 – 265 VAC) Output Nom: 5VDC 1000mA Type: Switch mode single or multi-plug solution Plugs: UK, EU, US and AUS																										
LAN Interface	Standard : 10BASE-T(IEEE 802.3 100Mbps), Connector: RJ45 8/8																										
Keys																											
	1: Reset key, Page, and Restore Factory Defaults																										
LED Indicator																											
	One Status LED (multi-colour, red, green, orange)																										
RF																											
Frequency Bands	1880 – 1900 MHz (EMEA) 1920 – 1930 MHz (USA) (Factory setting which can't be modified after production)																										
Output Power	250 mW or 140mW depending on country version																										
Antenna	Two antennas for diversity																										
Software Updates																											
Downloadable	Remote firmware update using HTTP, HTTPS or TFTP																										
Range (Handset to Base Station)																											
Indoor	50 meters (150 feet)																										
Outdoor	300 meters (900 feet) (EU) 250 meters (750 feet) (NA)																										
Call Features																											
Calls Supported	5 simultaneous calls supported																										
Simultaneous Calls/Base	5 Wideband calls (G.722), 5 Narrowband calls (PCMA, PCMU, G.726) or 4 Compressed calls (G.729)																										
Simultaneous Calls/ Handset	2																										
Call Features	<table border="0"> <tr> <td>Codec Negotiation</td> <td>Calling line identity</td> </tr> <tr> <td>Codec Switching</td> <td>Outgoing call</td> </tr> <tr> <td>Missed call notification</td> <td>Call Toggle/Swap</td> </tr> <tr> <td>Voice message waiting notification</td> <td>Incoming call</td> </tr> <tr> <td>Date and Time synchronization</td> <td>Line identification</td> </tr> <tr> <td>Parallel calls</td> <td>Multiple Lines</td> </tr> <tr> <td>Call Hold</td> <td>Multiple calls</td> </tr> <tr> <td>Call Retrieve</td> <td>Call identification</td> </tr> <tr> <td>Call transfer unannounced</td> <td>Calling Name Identification Presentation (CNIP)</td> </tr> <tr> <td>Call transfer announced</td> <td>Calling Line Identification Presentation (CLIP)</td> </tr> <tr> <td>Conference (3-Party)</td> <td>Call Completed Elsewhere</td> </tr> <tr> <td>Conference, Network</td> <td>Distinctive Ringing</td> </tr> <tr> <td>Call Waiting Indication</td> <td></td> </tr> </table>	Codec Negotiation	Calling line identity	Codec Switching	Outgoing call	Missed call notification	Call Toggle/Swap	Voice message waiting notification	Incoming call	Date and Time synchronization	Line identification	Parallel calls	Multiple Lines	Call Hold	Multiple calls	Call Retrieve	Call identification	Call transfer unannounced	Calling Name Identification Presentation (CNIP)	Call transfer announced	Calling Line Identification Presentation (CLIP)	Conference (3-Party)	Call Completed Elsewhere	Conference, Network	Distinctive Ringing	Call Waiting Indication	
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Conference, Network	Distinctive Ringing																										
Call Waiting Indication																											
Central Phone Book	Yes																										
- LDAP	Yes																										
- XML	Yes, remote or file load from web interface																										
- CSV	Yes, file load through web interface																										
Do Not Disturb (DND)	Yes																										
Call Forward	Configurable from base or handset																										
- CFU	Yes																										
- CFNA	Yes																										
- CFB	Yes																										
Call Groups	Yes, 1-20 handsets/SIP account																										
Hotel Mode	Yes (suppress call logs, no sound or lights during reboot, lock phone book, Settings lock, Audio settings lock, PIN protected, Contacts removed)																										

## Mitel RFP 12 IP Single Specifications (cont.)

CODECs	
G.711 PCM A-law & U-law	Yes
G.722	Yes
G.726	Yes
G.729	A/AB (including VAD), max 4 codecs, G.729 license not included
SIP	
RFC2327	SDP: Session Description Protocol
RFC2396	Uniform Resource Identifiers (URI): Generic Syntax
RFC2833	In-Band DTMF/Out of band DTMF support
RFC2976	The SIP INFO method
RFC3261	SIP 2.0
RFC3262	Reliability of Provisional Responses in the Session Initiation Protocol (PRACK)
RFC3263	Locating SIP Servers (DNS SRV, redundant server support)
RFC3264	Offer/Answer Model with SDP
RFC3265	Specific Event Notification
RFC3326	The Reason Header Field for the Session Initiation Protocol
RFC3311	The Session Initiation Protocol UPDATE Method
RFC3325	P-Asserted Identity
RFC3326	The Reason Header Field for the Session Initiation Protocol (SIP)
RFC3489	STUN
RFC3515	REFER: Call Transfer
RFC3550	RTP: A Transport Protocol for Real-Time Application
RFC3581	Rport
RFC3842	Message Waiting Indication
RFC3891	Replace header support
RFC3892	The Session Initiation Protocol (SIP) Referred-By Mechanism
RFC3960	Early Media and Ringing Tone Generation in the Session Initiation Protocol (SIP)
RFC4475	Session Initiation Protocol (SIP) Torture Test Messages
SIPS	Secure SIP
In-band DTMF	No
SRTP	Yes, packet authentication will limit the number of calls to 4
SIP Registrations	max 20
RTP Streams	max 10
SIP Transport	UDP, TCP or TLS
Redundant Server	Yes
Web Server	
	Embedded web server, accessed using HTTP
	Easy configuration of the phone, remote configuration via Management Interface
	Password protection

## Mitel RFP 12 IP Single Specifications (cont.)

IP Features	
IPv4	Yes
IPv6	Hardware ready, software not included
TCP/IP/UDP	Yes
DHCP Support	Yes
DHCP Option	66, 120
Static IP	Yes
DNS srv	Yes
VLAN	Yes, 802.1p/q
Quality of service	Type of Service (ToS) including DiffServ Tagging, and QoS per IEEE 802.1p/q
TLS	Yes, 1.0
Certificates	Yes, X.509 (certificate not included)
TFTP	Yes, for firmware and configuration file download
HTTP Server	Yes
HTTP Client	Yes, for firmware and configuration file download
HTTPS	Yes, for firmware and configuration file download
SNTP	Yes, For internet clock synchronization
DECT	
DECT Handover	Yes, inter-cell handover for repeater support
CAT-IQ v1.0	HD audio or NB audio support
Repeater Support	Yes, up to 3 per Base Station
Intercom	No
DECT Encryption	Yes
DECT Authentication	Yes
Group TPUI support	Yes, for call groups
GAP compliant	No
CAT-IQ Compliant	No
Handset Registrations	20
Other Features	
IP Quality	Warning – Network outage, VoIP service outage
Jitter Buffer	Yes, adaptive
Packet Loss Concealment	Yes
Automatic DST	Yes
Tone Scheme	Country Dependant Tone Scheme
Provisioning	Yes
Re-direct Server	Yes
SIP Configuration	Yes, from web page or configuration file
Call Groups	Yes
Platform Minimum Software Requirements	
MiVoice Business	Release 7.2
MiVoice Office 250	Release 6.1
MiVoice Border Gateway	Release 9.1, SP1
License Requirements	
MiVoice Business	Standard License or Enterprise License for each Mitel 112 DECT Phone
MiVoice Office 250	SIP Phone License Cat F for each Mitel 112 DECT Phone



## Mitel SIP-DECT – Single Cell General Specifications

Physical	
Dimensions (L x W x D)	
Phone	13.4 x 4.2 x 2.3 cm
Base Station	17.8 x 12.0 x 3.0 cm
Repeater	12.0 x 13.0 x 3.0 cm
Weight	
Phone (incl. Batteries)	111 g (3.9 oz)
Base Station	173 g (6.1 oz)
Repeater	132 g (4.7 oz)
Environmental Conditions	
Operational	Temperature      Humidity
Storage	0°C to +40°C      95% at 29°C
	-20°C to +65°C      95% at 29°C
Product Reliability	
Vibration (packed)	1) Free vibration: 1Hr (Random) 2) Fixed vibration: 1Hr (3-axis each) 3) Freq.: 5Hz 4) Acceleration: 1.2g
Drop Test (Carton)	(1) With full carton packaging (2) 1 corner, 6 faces and 3 edges on hard wooden ground, (3) height : 76cm under 9.5kg, 61cm if weight between 9.5kg to 18.5kg, 46cm if weight between 18.5kg to 27.5kg, 30.5cm if over 27.5kg
Drop Test (Gift Box)	(1) Floor Type: Concrete (2) Height: 95 cm. (3) Direction and times: One time for each face. One time for each corner
Drop Test (Un-packed)	(1) 6 faces on hard wooden ground Height: Handset = 1.7m, Charger/base= 1.0m (2) If base station wall mounted, added test: Base 2 faces 1.50m
Silkscreen and Paint Abrasion Test (Keypad/ Keytop)	RCA machine, 2 meters@170g
Rubbing Test with Alcohol	Material: 75% - 99% alcohol and coarse cloth Loading: 450gm @ (12.5x12.5)mm <sup>2</sup> with 100 cycles

## Mitel SIP-DECT – Single Cell General Specifications (cont.)

Regulatory Approvals	
Safety and CB Certificate	Canada / USA / EU / Australia and New Zealand: IEC60950-1:2005(2nd Ed.); AM 1:2009 EN60950-1:2006/ A1:2010 + A11:2009
EMC	EU / Australia and New Zealand: EN 301489-1 V1.9.1 EN 301489-6 V1.3.1 CISPR 22
Telecom	CANADA: CS-03 Part V (Hearing Aid Compatible) USA: FCC part 68 (Hearing Aid Compatible) US Americans with Disabilities Act (ADA) (HAC & Volume Control) Australia and New Zealand: AS/ACIF S040:2001 (Hearing Aid Compatible)
Acoustic	EU: TBR10, Edition 3 Australia and New Zealand: AS/ACIF S004:2008
Radio	Canada: RSS213, issue 2 USA: FCC Part 15, Subpart D EU / Australia and New Zealand: EN 301406 V2.1.1
SAR	USA and Canada: FCC OET Bulletin 65, Supplement IC, RSS-102 issue 2 Australia and New Zealand: IEEE Standard C95.1-2005 IEC/EN 62209-1 IEC 62209-2 IEEE Std 1528-2003

## Part Numbers

Item	Part Number	Description
Mitel 112 DECT Phone	51303913 (Universal)	Phone, charging cradle with hard wired power supply adapter (the power supply adapter kit contains multiple, attachable, voltage connector plugs) and 2 x rechargeable NiMH batteries
Mitel RFP 12 IP Single base station	51303911 (NA) 51303912 (EU)	Ethernet cable 5v Power supply adapter for base station (the power supply adapter kit contains multiple, attachable, voltage connector plugs, EU variant contains UK, EU and AUS Plug types)
Mitel RFP 12 IP Repeater	51303922 (Universal)	Power supply adapter for repeater (the power supply adapter kit contains multiple, attachable, voltage connector plugs)