

# Wireless calling systems



FORBIX SEMICON Co.  
Bangalore, India  
[www.forbixindia.com](http://www.forbixindia.com)  
[www.forbixsemcon.com](http://www.forbixsemcon.com)  
[sales@forbixindia.com](mailto:sales@forbixindia.com)  
+91 9742159846(M) / +91 9739111813(M)  
+91 80 6452 1122(L) / +91 80 2973 9330 (L)  
+91 9845100274(M)

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## Wireless calling systems

- No wiring
- No installation
- Robust and reliable
- No future maintenance
- Future expansion possible
- Easy to use and understand
- No need to analyze floor plan
- Functioning from last 10+ years
- Operates of latest RF technology
- Over 10,000+ customers worldwide
- Scalable from a few to even 1000 beds
- No limitation to the range of communication

## Calling point variants



**FBX521**



**FBX525**



**FBX540**



**FBX545**



Function	Remote controller, handheld	Wall mount calling point with 1 meter chord attached to bed switch	Wall mount calling point with 1 meter chord attached to bed switch and panic ALARM button	Wall mount calling point with ON/OFF buttons
Type	Transmitter	Transmitter	Transmitter	Transmitter
Purpose	One per bed / room / table with unique number	One per bed / room / table with unique number	One per bed / room / table with unique number	One per bed / room / table with unique number
Model no.	FBX521	FBX525	FBX540	FBX545
Range of communication	20-30 m indoors 100-120 m outdoors (in line of sight)	20-30 m indoors 100-120 m outdoors (in line of sight)	20-30 m indoors 100-120 m outdoors (in line of sight)	20-30 m indoors 100-120 m outdoors (in line of sight)
Enclosure type	Indoor purpose only	Indoor purpose only	ABS (weather proof)	ABS (weather proof)
Power supply	Battery 12V	Adapter 12V	Adapter 12V	Adapter 12V
Warranty	1 year	1 year	1 year	1 year
Application	Residential / commercial	Residential / commercial	Residential / commercial	Residential / commercial

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## Calling point variants



Function	Receiver display	Door module indicator	Room module indicator	Repeater / booster
Type	Receiver	Receiver	Receiver	Transmitter + Receiver
Purpose	Indicate attendant / nurse the calling remote number	One per bed or on the top of door (just outside the room). When a person calls, indicator blinks with beep sound	One per door or outside the room. When a person calls, indicator blinks with beep sound	Communication range enhancer
Model no.	FBXCSL02A FBXCSL03A FBXCSL04A	FBXDM01	FBXRM01	FBXCSRPT01 FBXCSRPT02
Range of communication	-	-	-	FBXCSRPT01 20-30 m indoors 100-120 m outdoors  FBXCSRPT02 50-60 m indoors 200-400 m outdoors
Enclosure type	Indoor purpose only	Indoor purpose only	Indoor purpose only	Indoor purpose only
Power supply	Adapter 12V	Adapter 12V	Adapter 12V	Adapter 12V
Warranty	1 year	1 year	1 year	1 year
Application	Residential / commercial	Residential / commercial	Residential / commercial	Residential / commercial



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2-digit

## Receiver console station



3-digit

Alternative models



4-digit

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### Specifications

#### Models:

2 – digit receiver: FBXCSL02A

3 – digit receiver: FBXCSL03A

4 – digit receiver: FBXCSL04A

#### Dimensions and weight:

Size: 240 x 165 x 45 mm

Weight: 450-580 gms (2 – 4 digits)

Display (each unit size): 48 x 65 mm

#### Possible display configurations:

For 2 digits 00, 01, 02, 03, ..... 99. Alphanumeric numbers also possible for 2/3/4 digit displays. Examples, A1, b2, c3, d4, E5, e5, F6, G7, HP01, i28, J452, L89, n02, P6, r412, t5, u58, U12, y8, 3012, 4569, 85A2, etc.

#### Additional features:

- Volume control knob to module beeping sound
- Number cancellation button
- Display number rotation in round-robin fashion if more than 1 number is called at a time
- Configurable up to 250 individual calling points
- Display self-check at power up

#### Total number of call points configured:

Maximum possible 250 remotes attached to 1 receiver

Typically 10 to 50 calling remotes for reliable performance

#### Operating voltage: (12V)

110-220VAC/50-60Hz to 12VDC converter adapter supplied.

Unit can also be plugged to any 12V external battery. Active working hours depends on the battery power

#### RF configurations:

Operating frequency: 380 – 480 MHz

System works on signal hop mechanism. Reception happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) and equivalents in sub-GHz freq.

Receiver sensitivity: – 112 dbm

#### Applications:

- Nurse call system for hospitals
- OPD token system for dispensaries
- Office peon calling system
- Restaurant waiter call station
- Guest house attendant calling unit

**FORBIX SEMICON**



## Wireless remote controller

### Specifications

**Model:** FBX521

**Range of communication:**

20 – 30 meters indoors

100 – 120 meters outdoors (line of sight)

**Remote controller (hand held):**

Battery operated (12VDC), battery type: 23A

Battery life 2-4 years

Battery replicable: Yes

Remote controller size: 120 x 40 x 20 mm

Remote controller weight: 45 gms

**Features:**

3 buttons (CALL / CANCEL / OPTIONAL)

1 red light indicator on top, glows when any button is pressed

Top button (ON) => send ON/CALL signal to the receiver

Bottom button (OFF) => send OFF/CANCEL signal

**RF configurations:**

Operating frequency: 380 – 480 MHz

System works on signal hop mechanism. Transmission happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) and equivalents in sub-GHz freq.

PA: +10dbm

**Signal transmissions:**

Make sure to press a button for at least 2-3 seconds for reliable transmission. This increases the range of communication

**Application and features:**

- Nurse call system for hospitals: remote with patients
- OPD token system for dispensaries: remote with doctors
- Office peon calling system: remote with clerk / manager
- Restaurant waiter call station: remote with customers on table
- Guest house attendant call unit: remote with customers in room

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## Wall mount call button



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+91 9845100274(M)

### Specifications

**Model:** FBX525 / FBX540 / FBX545

#### Range of communication:

20 – 30 meters indoors

100 – 120 meters outdoors (line of sight)

#### Wall mount calling unit:

Size: 150 x 90 x 55 mm

Weight: 230 gms

Call button bed switch wire: 0.5 – 1 meter

#### Features:

2 buttons (CALL / CANCEL) – Normal calling

1 button (RED Alarm type) – Emergency calling

1 green light indicator for power supply

1 blue light indicator for calling button press indication

1 buzzer, blows when call button or emergency RED button pressed

#### Operating voltage: (12V)

110-220VAC/50-60Hz to 12VDC converter adapter supplied.

Unit can also be plugged to any 12V external battery. Active working hours depends on the battery power

#### RF configurations:

Operating frequency: 380 – 480 MHz

System works on signal hop mechanism. Transmission happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) and equivalents in sub-GHz freq.

PA: +10dbm

#### Signal transmissions:

Make sure to press a button for at least 2-3 seconds for reliable transmission. This increases the range of communication

#### Application and features:

- Nurse call system for hospitals: remote with patients
- OPD token system for dispensaries: remote with doctors
- Office peon calling system: remote with clerk / manager
- Guest house attendant call unit: remote with customers in room



## Door module



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### Specifications

**Model:** FBXDM01 and FBXRM01

**Indicator light:**

Mounted on the top of door of hospital wards / office / patient rooms / guest house rooms / hotel suites etc.

RED indicator lights along with buzzing sound to indicate a call from the room inside

**Wall mount calling unit:**

Size: 130 x 110 x 40 mm

Weight: 230 gms

Call button bed switch wire: 0.5 – 1 meter

**Features:**

- 12 indicator RED lights on either side
- 1 indicator BLUE light in the front
- Buzzer sound
- Starts buzzing and indicating on press of CALL button
- Stops the indicator on press of CANCEL button

**Operating voltage: (12V)**

110-220VAC/50-60Hz to 12VDC converter adapter supplied.

Unit can also be plugged to any 12V external battery. Active working hours depends on the battery power

**RF configurations:**

Operating frequency: 380 – 480 MHz

System works on signal hop mechanism. Reception happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) and equivalents in sub-GHz freq.

Receiver sensitivity: – 112 dbm

**Application and features:**

- Nurse call system for hospitals: outside patient room / ward
- OPD token system for dispensaries: outside doctor's chamber
- Office peon calling system: outside conference rooms
- Guest house attendant call unit: outside a guest suit / room

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## Repeater (booster)

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### Specifications

#### Model:

Normal repeater: model FBXCSRPT01 (without antenna)

High power repeater: model FBXRPT02 (with antenna)

#### Repeater / booster:

This unit is used to enhance the range of communication. The repeater has a receiving and transmitting unit at its core. It collects the feeble radio signals from the remote control. And then forwards it in the air. It is possible to have multiple repeater units in a building / floor.

#### Wall mount calling unit:

Size: 160 x 100 x 35 mm

Weight: 230 gms

#### Features:

- Captures signals from the remote controllers
- Forward the signal in air by increasing the SNR (signal to noise ratio), thereby increasing the range of communication
- Increases the link budget by a factor of +125 dbm
- Indicator on the repeater unit to check for signal reception and forwarding, thereby ease in installation
- Every repeater adds up to a propagation delay of 1-2 secs

#### Operating voltage: (12V)

110-220VAC/50-60Hz to 12VDC converter adapter supplied.

Unit can also be plugged to any 12V external battery. Active working hours depends on the battery power

#### RF configurations:

Operating frequency: 380 – 480 MHz

System works on signal hop mechanism. Reception happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) and equivalents in sub-GHz freq.

Receiver sensitivity: – 112 dbm

PA: +10dbm

#### Application and features:

- Increases the range of communication within a floor or even for multiple floors
- It is recommended for 1 repeater every 10 remotes
- High power repeaters for multiple floor signaling





2-digit

## CODE BLUE receiver console

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### Specifications

#### Models:

2 – digit receiver: FBXCSL02AS

3 – digit receiver: FBXCSL03AS

4 – digit receiver: FBXCSL04AS

#### Dimensions and weight:

Size: 240 x 165 x 45 mm + revolving light 90mm(H)x150mm

Weight: 680-800 gms (2 – 4 digits)

Display (each unit size): 48 x 65 mm

#### Possible display configurations:

For 2 digits 00, 01, 02, 03, ..... 99. Alphanumeric numbers also possible for 2/3/4 digit displays. Examples, A1, b2, c3, d4, E5, e5, F6, G7, HP01, i28, J452, L89, n02, P6, r412, t5, u58, U12, y8, 3012, 4569, 85A2, etc.

#### Additional features:

- Revolving light with siren on the top of the display console
- Number cancellation button
- Siren activates with red emergency button from the wall mount is pressed
- Display number rotation in round-robin fashion if more than 1 number is called at a time
- Configurable up to 250 individual calling points
- Display self-check at power up

#### Total number of call points configured:

Maximum possible 250 remotes attached to 1 receiver

Typically 10 to 50 calling remotes for reliable performance

#### Operating voltage: (12V)

110-220VAC/50-60Hz to 12VDC converter adapter supplied.

Unit can also be plugged to any 12V external battery. Active working hours depends on the battery power

#### RF configurations:

Operating frequency: 380 – 480 MHz

System works on signal hop mechanism. Reception happens at more than 12-15 predefined frequencies

Modulation type: GFSK

Radio IC: CC1100 (Chipcon/TI) and equivalents in sub-GHz freq.

Receiver sensitivity: – 112 dbm

#### Applications:

- CODE BLUE nurse system for hospitals
- Office peon calling system, for emergency exit/alarm
- Restaurant waiter call station, for emergency exit/alarm
- Guest house attendant calling unit, for emergency exit/alarm