



Grandstream Networks, Inc.

GXP Series

Multicast Paging Guide

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OVERVIEW

A multicast page is essentially a predefined broadcast address that the phones or SIP user agents are programmed to listen to. Each phone can be configured to listen to as many as 10 different multicast IP address. GXP Series supports multicast paging, including sending and listening. On GXP Series, users could send multicast page by setting the multicast address and port number. Also, users can listen to 10 different multicast IP address.

Note: The range of multicast page address from 224.0.0.0-239.255.255.255.

BASIC FUNCTIONS

SENDING MULTICAST PAGE CONFIGURATION

Sending multicast page configurations are under Web UI **Settings->Programmable Keys->Line Keys**. User could configure one of line key mode as Multicast Paging and fill the multicast address combine with port number in space of Value. For example, set the Description as "Sales", Values as "224.10.11.2:6766". The Figure 1 shows the example of setting the sending multicast page configuration by using Line Keys.

Line Keys				
	Mode	Account	Description	Value
LINE 1	LINE	Account 1	Description	1003
LINE 2	LINE	Account 2	Description	1004
LINE 3	Multicast Paging	Account 1	Sales	238.11.10.11:6767
LINE 4	Multicast Paging	Account 1	DOTA	238.11.10.12:6768
LINE 5	Multicast Paging	Account 2	2K	238.11.10.13:6769
LINE 6	Multicast Paging	Account 2	Grandstream	238.11.10.14:6770

Figure 1.1 Sending Multicast Page Configuration by using Line Keys on GXP21XX

Line Keys

	Mode	Account	Description	Value
LINE 1	LINE	Account 1	Description	Value
LINE 2	Multicast Paging	Account 1	Sales	238.11.10.15:6770

Figure 2.2 Sending Multicast Page Configuration by using Line Keys on GXP16XX

Also, user could use MPK (GXP2160/GXP1628 only) to set the configuration of multicast page. The configurations are under GXP2160's Web UI **Settings->Programmable Keys->Multi-Purpose Keys**.

Multi-Purpose Keys

	Mode	Account	Description	Value
MPK 1	Multicast Paging	Account 1	Sales	238.11.10.11:6767
MPK 2	Multicast Paging	Account 1	DOTA	238.11.10.12:6768
MPK 3	Multicast Paging	Account 1	2K	238.11.10.13:6769
MPK 4	Multicast Paging	Account 1	Grandstream	238.11.10.14:6770
MPK 5	Multicast Paging	Account 1	Description	238.11.10.15:6771

Figure 2.1 Sending Multicast Page Configuration by using MPK on GXP2160

Multi-Purpose Keys

	Mode	Account	Description	Value
MPK 1	Multicast Paging	Account 1	Sales	238.11.10.11:6767
MPK 2	Multicast Paging	Account 1	Warehouse	238.11.10.12:6768
MPK 3	Multicast Paging	Account 1	Finance	238.11.10.13:6769
MPK 4	Multicast Paging	Account 1	Support	238.11.10.14:6770
MPK 5	Multicast Paging	Account 1	Testing	238.11.10.15:6771
MPK 6	Speed Dial	Account 1	Description	Value
MPK 7	Speed Dial	Account 1	Description	Value
MPK 8	Speed Dial	Account 1	Description	Value

Figure 2.2 Sending Multicast Page Configuration by using MPK on GXP1628

RECEIVING MULTICAST PAGE CONFIGURATION

To receive multicast page user must configure a listening address and port. The configurations are under **Settings->Multicast Paging**.

User should have 10 of these with priority levels 1-10 with 1 being the highest priority. Optionally each of these can also have a label that would be displayed when receiving a page from each.

PAGING BARGE

User should be able to specify what priority traditional SIP calls have by setting Paging Barge. This value from 1 to 10 or disable. If the traditional SIP call priority is higher than an incoming page priority (determined by the position in the list 1-10) then the incoming page is not played. If the option is set to disabled then all incoming pages are ignored while in call.

For example, see the figure 3 that configured the Paging Barge as 3. During active call if incoming multicast page priority is 3, 4, 5, 6, 7, 8, 9, 10, the current active call will be held. However, if the incoming multicast page priority is 1, 2, the current active call will be kept.

Paging Barge

Paging Priority Active Disabled Enabled

Multicast Paging Codec

Multicast Listening

Priority	Listening Address	Label
1	224.11.10.11:6767	Sales
2	224.11.10.12:6768	Test
3	224.11.10.13:6769	Marketing
4	224.11.10.14:6770	Developer
5	224.11.10.15:6771	Noob
6	224.11.10.17:6771	Boss
7	224.11.10.18:6771	Slark
8	224.11.10.19:6771	Tide
9	224.11.10.20:6771	Grandstream
10	224.11.10.21:6771	USC

Figure 3. Paging Barge setting on GXP21XX

PAGING PRIORITY ACTIVE

Disable or enable the option of Paging Priority Active when there are multiple pages at the same time. User could enable this option. If the option is enabled, incoming pages with a higher priority will be played instead of the current page.

For example, if there is currently a page being played with priority 5 and then an incoming page with priority 3 comes in, the priority 5 page is stopped and the priority 3 page plays instead. If user disable the option, the phone ignores any incoming pages when a page is already being played.

Paging Barge

Paging Priority Active Disabled Enabled

Multicast Paging Codec

Multicast Listening

Priority	Listening Address	Label
1	224.11.10.11:6767	Sales
2	224.11.10.12:6768	Test
3	224.11.10.13:6769	DOTA
4	224.11.10.14:6770	2K
5	224.11.10.15:6771	Grandstream

Figure 4. Enable Paging Priority Active

MULTICAST PAGING CODEC

User could chose different Codecs to listen a multicast page. The Codecs include PCMU, G.729A/B, PCMA, G726-32, G.722 (wide band), iLCB, and G723.1(GXP16XX only).

Table 1 Receiving Multicast Page Configuration

Settings -> Multicast Paging	
Paging Barge	Default setting is “Disable”. Assigns any number from 1 to 10. If the number of current multicast page is higher than the number assigned, the active will be held and multicast page will be played.
Paging Priority Active	Default setting is “Disable”. If enable the option, the current multicast page will be held, when the priority of incoming multicast page is higher than current multicast page’s priority.
Multicast Paging Codec	7 different codec type are supported on multicast paging, including PCMU, G.729A/B, PCMA, G.726-32, G.722 (wide band), iLBC, and G723.1(GXP16XX only). The default setting is PCMU.
Multicast Listening	Support 10 of listening multicast address with priority levels 1-10 with 1 being the highest priority. The lower the level, the higher the priority.

Note: The multicast page configuration will take effect after rebooting the phone.

SET UP MULTICAST PAGE IMPLEMENTATION

After configuring the sending multicast page, users could make a multicast page to others who will receive it.

1. Press the MPK or Line Keys to make a multicast page on Speaker. User could off hook to pick up audio through the handset instead.
2. The screen will show the multicast address with a label that defined on description. See Figure 5 Multicast Page screen.
3. LED on the right of top will light up green.
4. Press the “EndCall” soft key to end the multicast paging.

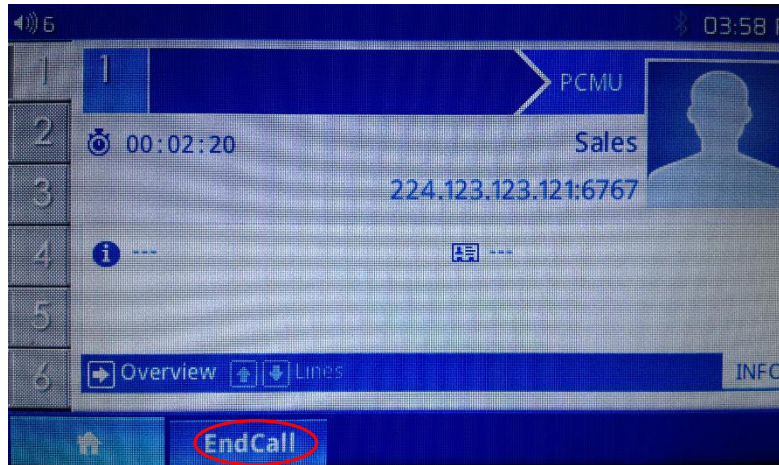


Figure 5. The Multicast Page Screen on GXP21XX