GXE502x Quick Installation Guide

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Grandstream Networks, Inc., 1297 Beacon St., 2nd Flr, Brookline, MA 02446 USA
Tel: (617) 566-9300, FAX: (617) 249-1987
www.grandstream.com
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Grandstream GXE502x IPPBX Quick Start Guide

This Quick Start Guide will quickly take you through the necessary steps to set up your Grandstream GXE502x. For advanced configuration instructions please consult the GXE user manual after completing the steps in this guide.

Check your GXE502x packaging:

- GXE502x unit
- Ethernet cable
- 12V DC power adapter

Note: Before configuring your GXE please go to http://www.grandstream.com/BETATEST for the newest firmware releases, voice prompts and updated GXE documentation.

System Set-up Prerequisites:

- Compatible PC (to access web GUI)
- Ready access to power and UPS or surge protector
- DHCP must be configured with DHCP Option 66 enabled for Grandstream phones to be auto-provisioned (Grandstream default configuration. Non-Grandstream IP phones will need to be configured manually).

***Switch/Hub**: network device used to share network connections*

***PSTN Line**: traditional analog POTS line*

***DHCP:** dynamic host configuration protocol – automatically assigns IP addresses*

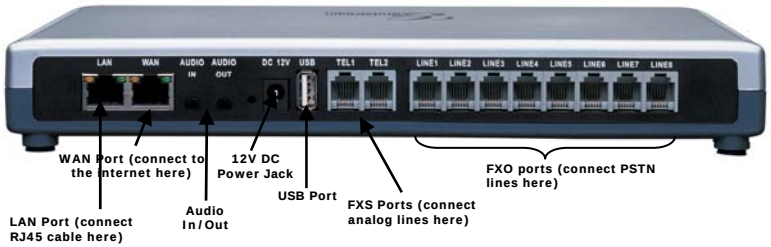
***Extension Length:** number of characters in an extension. For example: ext 800 has an extension length of 3.*

Connecting the GXE502x:

1. Connect one end of an RJ-45 Ethernet cable into the LAN port of the GXE.
2. Connect the other end of the Ethernet cable into the uplink port of an Ethernet switch/hub.

The GXE will be the router for this network, and will serve as a DHCP server as well. However, do not connect phones and other SIP devices to the switch/hub at this point; they will need to be connected later to be auto-provisioned.

3. Connect the 12V DC power adapter into the 12V DC power jack on the back of the GXE. Insert the main plug of the power adapter into a surge-protected power outlet.
4. Let the GXE boot up for the first time. You will know it is finished with the boot process when the "READY" LED is solid green.



5. Connect PSTN lines from the wall jack to the FXO ports, and analog lines (phone and fax) to the FXS ports. IP phones will be connected in a later step.

GXE Configuration Steps

ONE. Access the web GUI (web configuration pages):

1. Connect a Windows PC to the same switch/hub that is connected to the GXE.
2. Click on the start menu and go to the "Run" option and type "cmd" to launch the Windows command prompt window.
3. Enter the following commands in the prompt window: *ipconfig /release* followed by *ipconfig/renew*. Press the enter button on your keyboard to run each command.
4. Open up a web browser of your choice (Microsoft Internet Explorer 7 recommended).
5. Type the default GXE LAN port IP address in the URL field: 192.168.10.1 and press the Enter key and the GXE web configuration login screen will load immediately. (**See Figure 1-1**)
6. The default login name and password are both "admin."
7. After logging in, the GXE web configuration interface (web GUI) will appear.

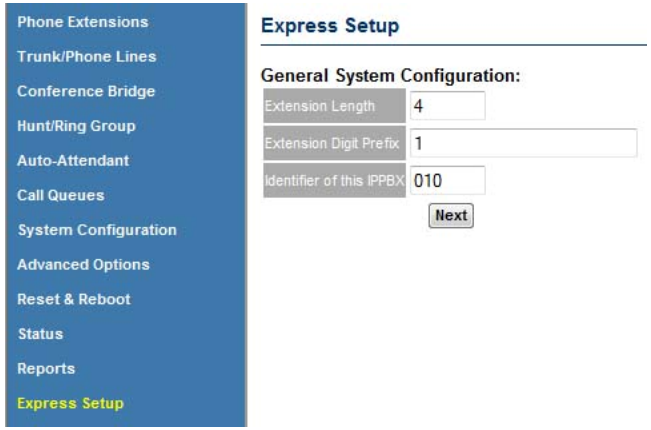
Figure 1-1

Note: All GUI screenshots are examples, do not copy these configurations into your GXE.

TWO: Set-up Wizard (Express Setup):

The set-up wizard is pre-configured with basic call settings that enable you to quickly configure your GXE. Use this wizard to begin making calls immediately and to understand the basic configuration set-up. ***Note*: The Express Setup Feature can only be run when the GXE is at the factory default settings.**

1. Click on the yellow **Express Setup** link at the left of the menu bar to load the Express Setup screen (**See an example in Figure 2-1**). This page lets you define the length of your extensions as well as the extension prefix and the identifier for your office (IP-PBX #).
2. Click "Next" to bring up the Automatic Extensions Provisioning page (**See Figure 2-2 on the next page**). This page shows a list of the default extension numbers for various key GXE extensions. Please ensure that the extension length and



extension digit prefix matches the values set in the previous Express Setup page.

Figure 2-1

3. Click on the button labeled: “Start Auto Provisioning” (**See Figure 2-2**). Once the Automatic Extensions Provisioning screen loads (**See Figure 2-3**), the GXE will begin finding devices by waiting for them to communicate via DHCP. At this point, please start connecting all SIP devices/phones into the switch/hub. The page will keep refreshing as the GXE looks for new devices.

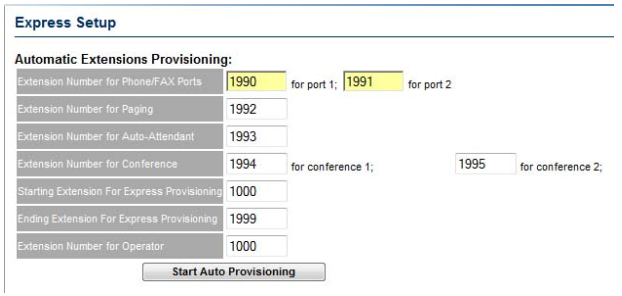


Figure 2-2

In addition, your SIP devices/phones need to have **DHCP enabled** as well as have **DHCP Option 66** allowed to be auto-provisioned; these are factory default settings on Grandstream products as well as many others.

To ensure proper auto-provisioning of Grandstream IP phones, connect the IP phones to the switch/hub *after* Step 3, as the GXE will only auto-provision phones found during this stage.

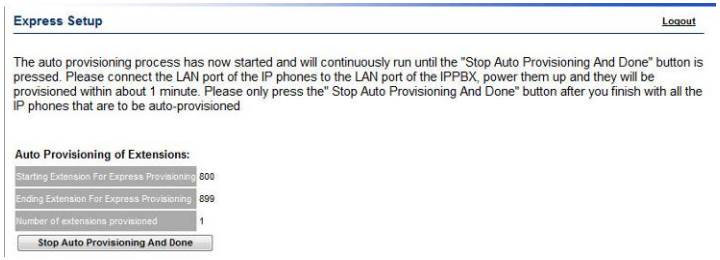


Figure 2-3

4. As the SIP devices/phones are auto-provisioned, the “Number of extensions provisioned” counter will increment to inform you of the auto-provisioning progress. Press the “Stop Auto Provisioning and Done” button when all devices are configured (**See Figure 2-3**). The Extensions Directory page will load automatically (**See Figure 2-4**). This will show you the default operator extension and all devices found during the Auto Provisioning step.
5. You are now ready to make phone calls locally!! Try to make calls between your

extensions.

6. To make a call pick up the receiver and dial the extension and press the send button or #.

Figure 2-4

THREE: Manually Adding Extensions

1. If you need to add more extensions manually, you can click on “Add One Extension” or “Batch Add” to add multiple extensions at a time. Choosing “Add One Extension” will load the “Add Extension page” (**See Figure 3-1**); enter a User Name, Extension, and SIP Password. You may set any of the other optional settings as you wish, then click the “Submit” button when done.
2. Next you will need to log into the web interface of the phone to be added by typing the IP address of the phone in your web browser.
3. Type in “admin” for the password on the phone’s login screen (example given for Grandstream phones).
4. When you are logged in, the advanced settings page will load automatically.
5. Click on the Account 1 page of your phone to load the account configuration page (**See Figure 3-2**) and enter the 192.168.10.1 as the SIP Server.
6. Enter the corresponding information from the GXE’s “Add Extension” page for SIP User ID (The Extension #), Authenticate ID (The Extension#) and Authenticate password (SIP Password).
7. Scroll to the bottom of the account configuration page and click the “update” button. After the next page loads, click on the “reboot” button.
7. Congratulations, you have manually added an extension to your GXE!

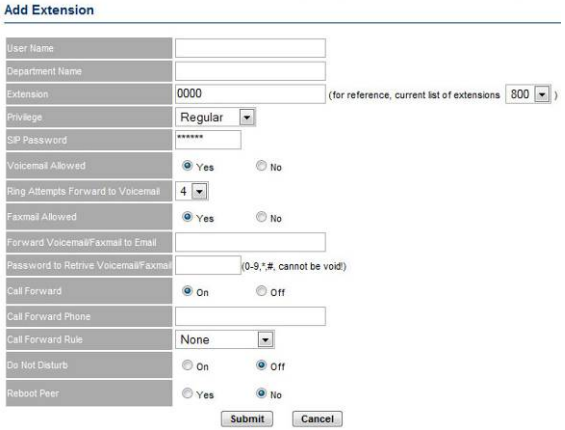


Figure 3-1

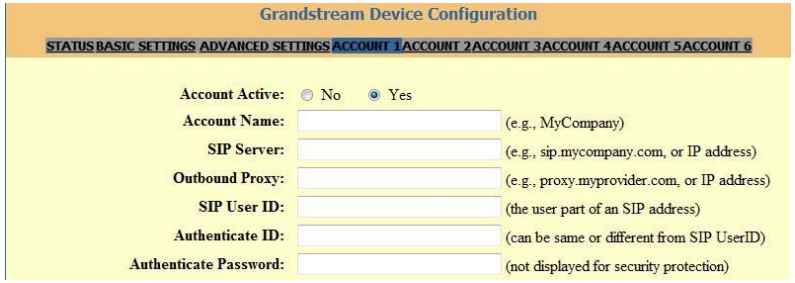


Figure 3-2

FOUR: Configuring the Network Settings

1. Click on “System Configuration” in the left hand column. This will automatically load the Network Settings configuration page (**See Figure 4-1**). On this page you can configure the LAN and WAN settings such toggling between using DHCP or using a static IP address. You may choose to simply use the default setting values, or customize them if necessary.
2. The default LAN Base IP is 192.168.10.1/255.255.255.0. If you wish to use a different internal IP addressing scheme, please change it before running the express setup as the GXE will auto-provision the LAN Base IP into the phones for them to communicate with the GXE. Reboot the GXE before proceeding to the next step to make the LAN Base IP setting change take effect.

Warning: Do NOT change the LAN Base IP after auto-provisioning phones after the express setup, this will break the connection between your configured phones and the GXE.

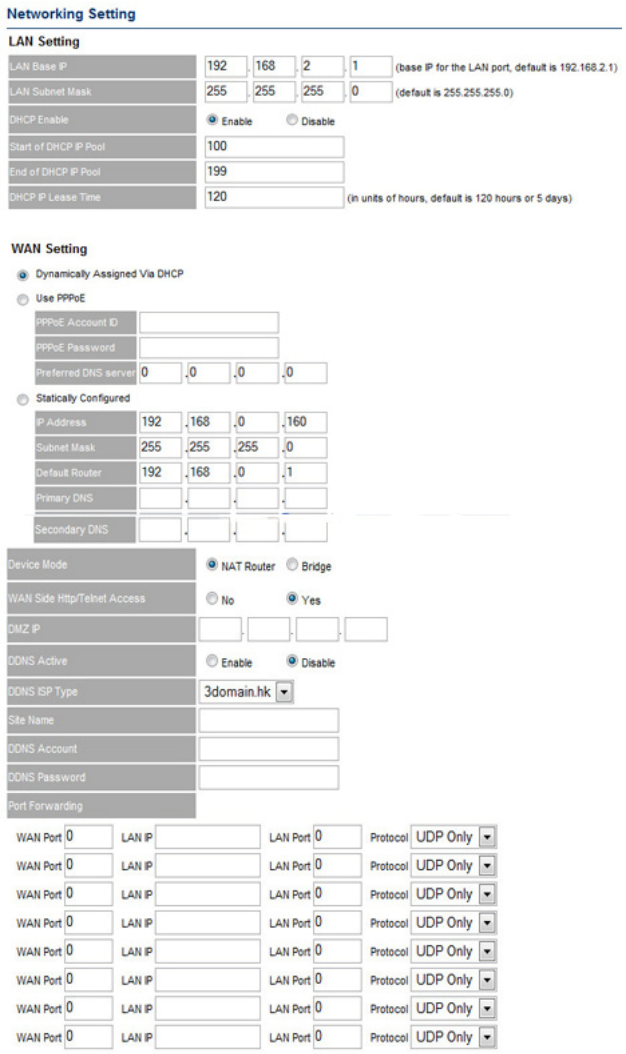


Figure 4-1

FIVE: Configuring the System Settings

1. Click on “System Configuration” in the menu bar on the left.
2. Click on “System Settings” in the expanded menu to load the system settings page (**See Figure 5-1**). This page lets you configure the login and contact information of the system administrator, email options, time zones, call record servers and storage quotas.
3. For better security, please change the web configuration password by entering your own password in the “Login Password” field. Keep this password safe and do not lose it.
4. To enable the voicemail-to-email feature, please create a new email address or use an existing one.
5. Enter the email account SMTP Server, Login Name, Login Password, and Email Address settings in the corresponding fields; you may obtain this information from your email provider.
6. Click on the “Submit” button to save your changes.

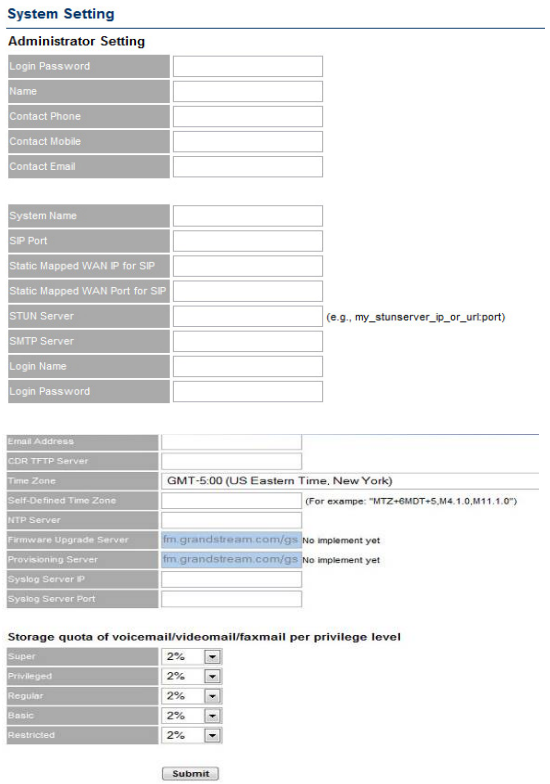


Figure 5-1

SIX: Configuring PSTN Lines (if available)

1. Click on TRUNK/Phone Lines on the left menu bar to load the Internal PSTN Trunk Line configuration page (**See Figure 6-1**).
2. All sections on this page except for the Line Call Control section are used to match the settings of the GXE to the local PSTN line parameters. The default settings should work in most cases; you may check with your PSTN service provider if your line parameters differ so that these settings may be adjusted accordingly.
3. Scroll down to the bottom of the page to view the "Line Call Control" Settings (**Figure 6-2**). To direct all incoming PSTN calls on all lines to an operator, for example, first enter "1-8" in the Line field.
4. In the Inbound Call Answer drop-down box, choose "Direct Extension." In the drop-down box to the right, choose the extension number of the operator.

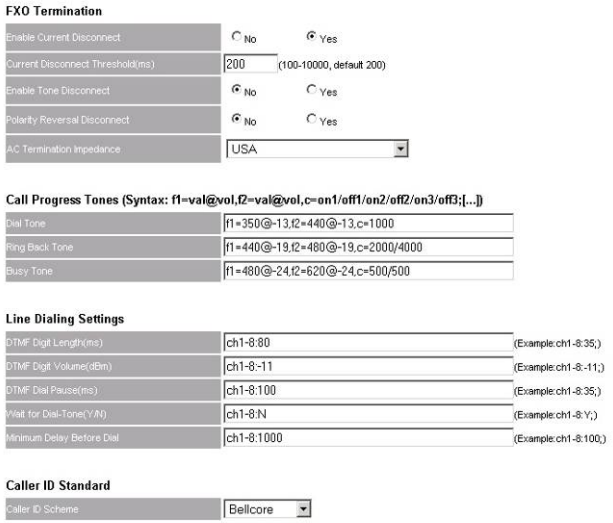


Figure 6-1

5. Set the Dial Prefix field to the prefix used to for outgoing PSTN calls; for example, "9" is commonly used.

Note: This section is very important as it configures how all incoming calls are handled on the FXO lines. For example you could have all incoming calls go to the auto-attendant for one line and add a dial pre-fix for another.

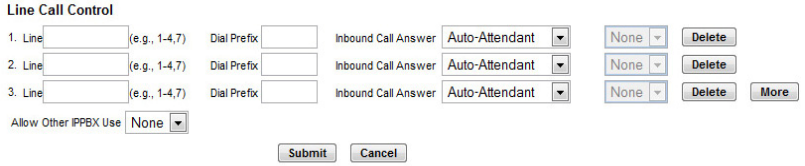


Figure 6-2

SEVEN: Configuring SIP Trunks (if available)

1. Click on TRUNK/Phone Lines on the left menu bar and then click on “SIP Trunk” to load the SIP Trunk configuration page (**Figure 7-1**).
2. Your SIP service provider will provide you with SIP account and registration information, which you may enter in the respective fields of this page.
3. Set the “Trunk Active” setting to “Enable” to enable this trunk on your GXE. You may also specify an arbitrary name for this trunk in the “Trunk Name” field, as well as one for the SIP account in the “Account Name” field.
4. To set a limit on the number of calls allowed through this trunk, please set the “Max Concurrent Calls Allowed” field to the limit allowed by your service provider, or a lower number if you wish.
5. Set the dial digit prefix which users will prefix outbound numbers with to specify this trunk to be used.
6. Lastly, use the “Inbound Call Answer” setting to specify the inbound call destination, such as “auto-attendant”.

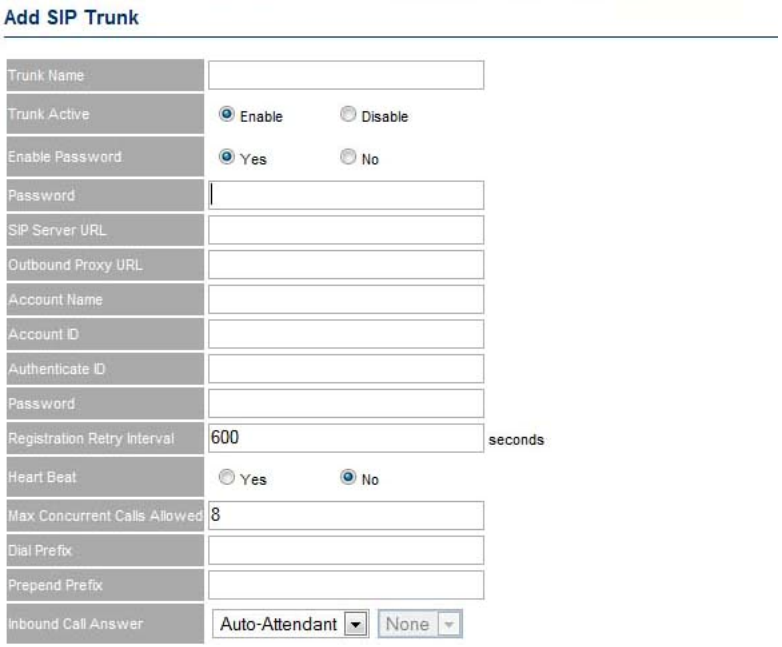
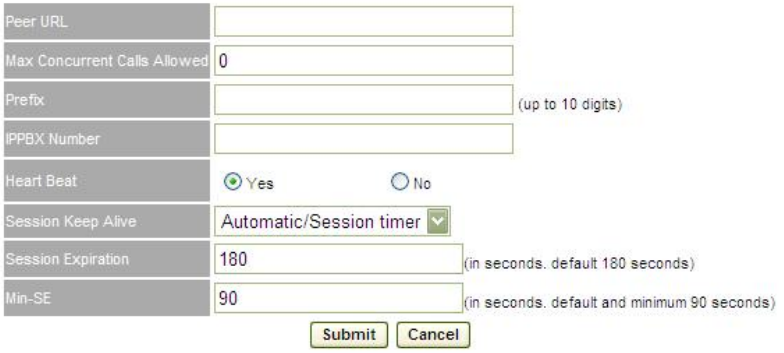


Figure 7-1

EIGHT: Configuring a Peer System (if available)

1. If you have more than one GXE502x, you can configure the units to be peers. To do this, click on “Advanced Options” in the menu bar to load the “Peer Systems” page.
2. Click the “Add” button to load the “Add Peer System” Page (**Figure 8-1**). This page lets you enter configuration data for the remote GXE you are adding as a peer system.
3. In the Peer URL field, enter the IP address or domain name of the peer GXE. Assign a number to the Trunk Number parameter to set the # of concurrent calls possible on the peer system.
4. Set the extension prefix of the remote PBX extensions in the Prefix field. The



GXE will route calls starting with this prefix to the peer system.

5. Assign a number to this peer system in the IPPBX Number field.
6. If the peer system is another GXE, set the Heart Beat setting to "Yes." Otherwise, use "No."
7. Reboot the GXE so the configuration changes can take effect.

Figure 8-1

Grandstream Networks, Inc. Corporate Headquarters	
www.grandstream.com info@grandstream.com	1297 Beacon Street, 2nd Floor, Brookline, MA USA 02446 Tel : +1 (617) 566 – 9300 Fax: +1 (617) 247 – 1987

About Grandstream Networks

Grandstream Networks, Inc. is an award-winning designer and manufacturer of next generation IP voice & video products for broadband networks. Grandstream's products deliver superb sound and picture quality, rich telephony features, full compliance with industry standards, and broad interoperability with most service providers and 3rd party SIP based VoIP products. Grandstream is consistently recognized in the VoIP industry for their innovation, affordability and superior value in their products. Grandstream Networks is a private company headquartered in Brookline, MA with offices in Los Angeles, Dallas and China. For more information, please visit www.grandstream.com.

Declaration of Conformity for GXE 502x:

Konformitätserklärung gemäß dem Gesetz über Funkanlagen und Telekommunikationsendeinrichtungen (FTEG) und der Richtlinie 1999/5/EG (R&TTE)

Declaration of Conformity in accordance with the Radio and Telecommunications Terminal Equipment Act (FTEG) and Directive 1999/5/EC (R&TTE Directive)

Hersteller /Verantwortliche Person / The manufacturer / responsible person

Manufacturer: **Grandstream Networks, Inc.**
Suite 201-205, Bldg #1 (LangFeng Bldg), Industrial Zone
#2 KeFa Road NanShan High Tech Industrial Park, ShenZhen, China

Responsible Laboratory: **Bay Area Compliance Lab Corp. ShenZhen**
Suite C, 41-D Electronics Science & Technology Building,
No. 2070 Shennanzhong Rd ShenZhen,
Guandong 518031, P.R. China
Tel: (755) 83296449
Fax: (755) 83273756

erklärt, dass das Produkt/ declares that the product:

Series: IP-PBX
Model: GXE 502x
Attestation Number: RSZ07033003-1, RSZ07033003-2
Date of Issue: April 13, 2007
Type (ggf. Anlagenkonfiguration mit Angabe der Module):
Type (if applicable, configuration including the modules)

[**X**] Telekommunikations(Tk-)endeinrichtung
Telecommunications terminal equipment

[ ] Funkanlage
Radio equipment

Telecommunication via Voice over IP (VoIP)
Verwendungszweck
Intended purpose

.....
Geräteklasse
Equipment class

bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen des § 3 und den übrigen einschlägigen Bestimmungen des FTEG (Artikel 3 der R&TTE) entspricht.
complies with the essential requirements of §3 and the other relevant provisions of the FTEG (Article 3 of the R&TTE Directive), when used for its intended purpose.

Gesundheit und Sicherheit gemäß § 3 (1) 1. (Artikel 3 (1) a))
Health and safety requirements pursuant to § 3 (1) 1. (Article 3(1) a))

angewendete harmonisierte Normen ... Einhaltung der grundlegenden Anforderungen auf

Harmonised standards applied...	andere Art und Weise (hierzu verwendete Standards/Spezifikationen) ... Other means of proving conformity with the essential requirements (standards/specifications used)...

Schutzanforderungen in Bezug auf die elektromagn. Verträglichkeit § 3 (1) 2, Artikel 3 (1) b))
Protection requirements concerning electromagnetic compatibility § 3(1)(2), (Article 3(1)(b))

angewendete harmonisierte Normen Harmonised standards applied...	Einhaltung der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/Spezifikationen)... Other means of proving conformity with the essential requirements (standards/specifications used)...
EN 55022: 1998+A1:2001+A2:2003 Class B	
EN 55024: 1998+A1:2001+A2:2003	
EN 61000 3-2:2000 +A2:2005	
EN 61000 3-3:1995+A1:2001+A2:2005	

Maßnahmen zur effizienten Nutzung des Funkfrequenzspektrums
Measures for the efficient use of the radio frequency spectrum

Non-applicable

Luftschnittstelle bei § 3 Funkanlagen gemäß (2) (Artikel 3(2))
Air interface of the radio systems pursuant to § 3(2) (Article 3(2))

angewendete harmonisierte Harmonised standards applied	Normen Einhaltung der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/ Schnittstellenbeschreibungen)...
Non-applicable	Other means of proving conformity with the essential requirements (standards/interface specifications used)...

Anschrift/Address Grandstream Networks, Inc. 1297 Beacon St 2nd Flr Brookline, MA 02446 USA	+ TK-Nr./Phone, fax, e-mail Tel: +1 (617) 566-9300 x 804 Fax: +1 (617) 249-1987 info@grandstream.com
Ort, Datum Place & date of issue	Name und Unterschrift Name and signature
Brookline, MA, USA February 25, 2008	Bruce G. MacAloney, Vice President