



WR12 Wide-band Receiver add-on for Xiegu X6200

54 MHz-1,005 GHz (receive only)

# Radioddity Extended manual for Xiegu WR12

V1.0, May 28<sup>th</sup> 2025

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## About Radioddity

### **‘You, our friend and customer, are our focus’**

At Radioddity, our customers are important to us. As a customer, your time and money are important to you. When you buy radios online, you face a dilemma: buy from a reputable website at a higher price, or try to save money by choosing a retailer that may not offer quality goods, service or advice. At Radioddity.com, you don't have to choose between low prices and a safe shopping experience. Whether you are a first-time shopper or an experienced radio amateur, we always do our utmost to ensure that you get the best possible value for money. Over the past few years, Radioddity has continuously strived to better meet the needs of wireless equipment buyers and has become a reliable partner. We do this by offering the highest quality products at an affordable price and by providing you with first-class support after-sales support as well warranty cover. Because as our customer, you deserve nothing less.

### **Our promise: To offer you the best shopping experience**

Strong partnerships enable us to offer you the latest technologies with an excellent price/performance ratio under the Radioddity brand name. Our experienced and responsive customer service team helps us to deliver on our promise to you and better meet your everyday needs. Whether it's offering you the latest and greatest DMR, HF and analog radios, accessories and related products, providing outstanding technical support or working with amateur radio industry leaders to develop helpful content to assist you with your purchase: Your concern is our concern. We want to provide you with quality radios at great prices. If you feel we are not delivering on this promise in any way, please let us know by e-mail:

[support@radioddity.com](mailto:support@radioddity.com)

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## 1 Preface

The Xiegu WR12 is a wide band receiver add-on to the Xiegu X6200. It down-converts frequencies above 54 MHz up to 1 GHz to suitable intermediate frequencies within the normal reception range of the Xiegu X6200. This significantly increases the receiving frequency range of the Xiegu X6200

This extended manual goes beyond the contents of the manual you received when you purchased your Xiegu WR12 Wide-Band Receiver.

Windows™, Linux™ and OS X™ are trademarks of their respective owners. If a trademark assignment is missing, incorrect or erroneous, please contact us as soon as possible so that we can correct this immediately.

***Parameter names*** as displayed on the screen of the Xiegu X6200 are written in ***bold italics***.

## 2 Revision history of this document

We are constantly striving to update our manuals in line with changes resulting from new firmware versions. If you miss an aspect in this document or believe that something has been described incorrectly or misleadingly, please give us feedback via our central e-mail address [support@radioddity.com](mailto:support@radioddity.com). We will do our best to make the next version of this document even better for our customers.

| revision | changes                                                                                                                                | released   |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|------------|
| V1.0.0   | <ul style="list-style-type: none"><li>First version, based on the original English User Manual, but extensively supplemented</li></ul> | 2025-05-29 |

### 3 What is included in the box?

Thank you for purchasing a Xiegu WR12 from Radioddity. We recommend that you first check the delivery list below and keep the packaging for possible later usage. If anything is missing or damaged, please contact Radioddity immediately.

#### 3.1 Delivery list for the Xiegu WR12

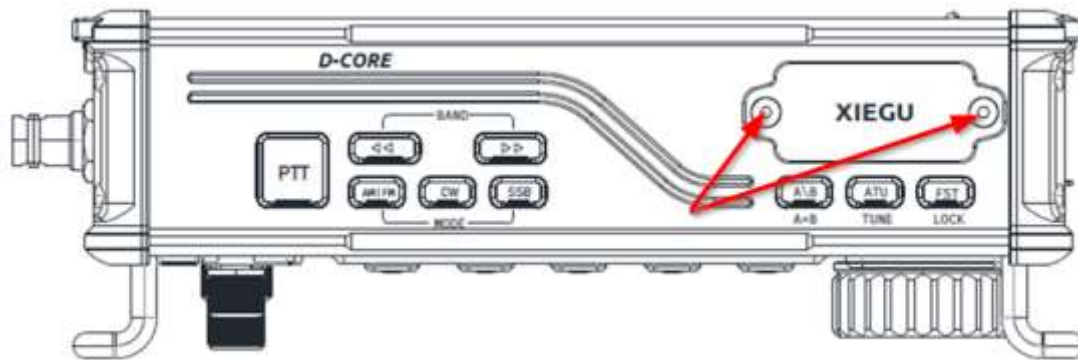
| Part                                                                       | Picture                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Xiegu WR12</b><br>Wide-Band Receiver<br>Add-on                          |  A black rectangular electronic device with two SMA connectors on the left side. The front face features the XIEGU logo and the text 'WR12 Wide-Band Receiver'. |
| <b>USB-C to USB-C cable</b><br>Length 17cm                                 |  A black USB-C to USB-C cable with both ends having standard USB-C connectors.                                                                                |
| <b>SMA-m to BNC-m cable</b><br>With rectangle BNC connector<br>Length 20cm |  A black cable with an SMA connector on one end and a BNC connector on the other.                                                                             |
| <b>Thumb Screws (2x)</b><br>M3 x 30mm with affixed M3 nut                  |  Two black thumb screws with M3 nuts attached to their ends.                                                                                                  |
| <b>Hex Wrench 2mm</b><br>17mm x 45mm                                       |  A black hex wrench with a 2mm hexagonal opening at one end.                                                                                                  |

| Part                      | Picture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Xiegu Manual              | <p style="text-align: right;">Rev: 1.0</p> <p style="text-align: center;"><b>WR12 Manual</b></p> <p>WR12 is an extended component of XG200, which is internally equipped with frequency converter with good sensitivity, linearity, and adjacent channel immunity. It can down convert the wireless signals to low intermediate frequency signals and transmit them to the XG300 host, increasing the receiving bandwidth of the XG200 host.</p> <p><b>1. Installation Steps</b></p> <p>① Use the matching hex screw to secure the fixing corner of the small cover plate, and then remove it.</p>  <p style="text-align: center;">Fig.1 Installation step 1</p> <p>② Insert the protrusion of the WR12 component into the groove on the top of the XG300 host.</p>  <p style="text-align: center;">Fig.2 Installation step 3</p> |
| Product Warranty Card     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Certificate of conformity | <printed on box>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

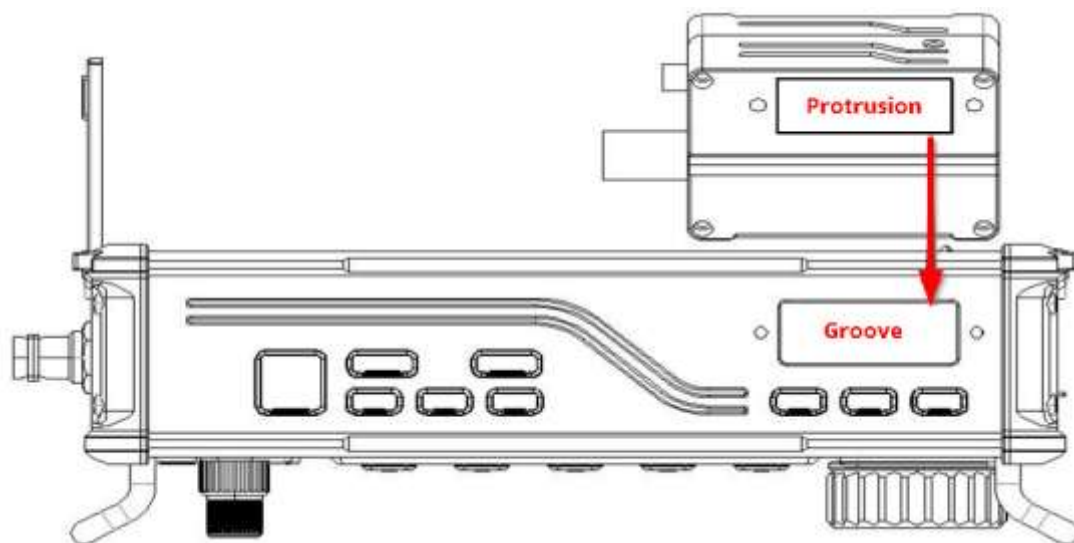
All technical data subject to be changed without further notice.

## 4 Mechanical mounting of the Xiegu WR12

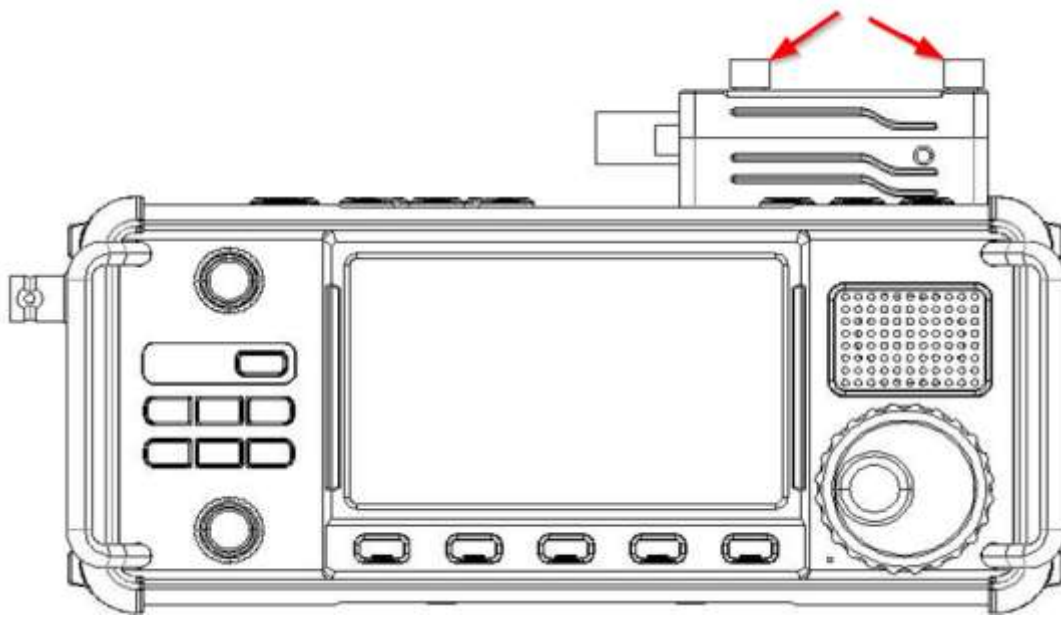
Remove the two M3 hex screws that hold the cover plate on the upper side of the Xiegu X6200 in place using the 2mm hex wrench that comes with the Xiegu WR12. Put the two M3 screws and the cover plate aside for later use.



Now position the protrusion of the Xiegu WR12 within the groove of the Xiegu X6200.



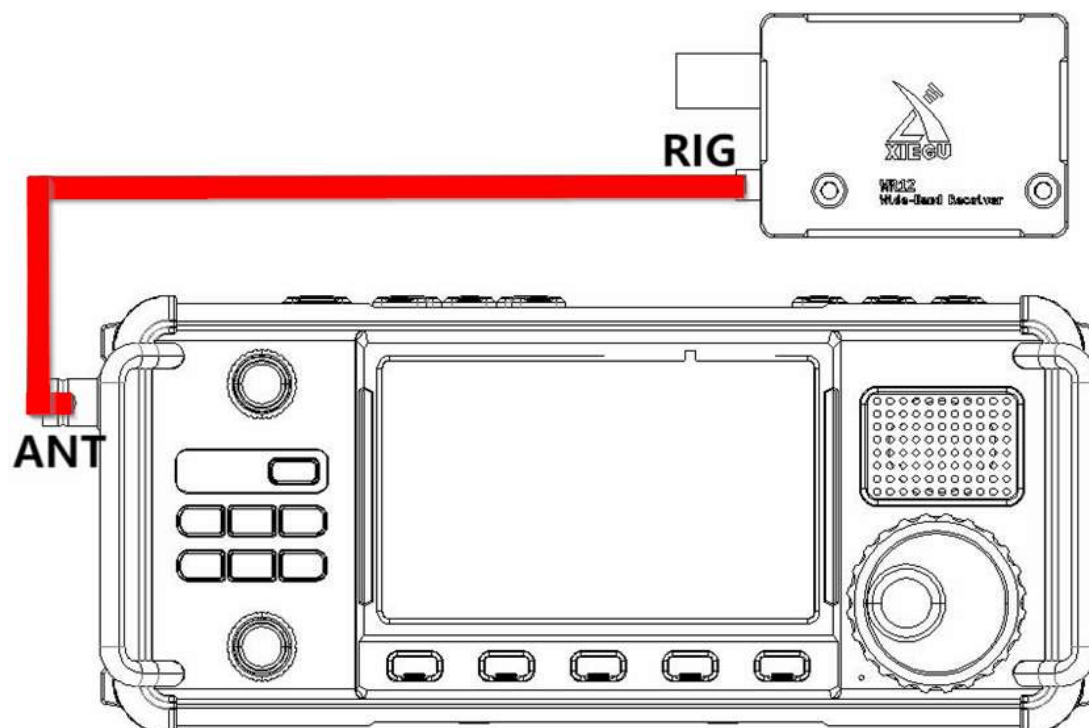
Secure the Xiegu WR12 to the Xiegu X6200 using the two thumb screws that come with the Xiegu WR12.



This completes the mechanical connection of the Xiegu WR12 to the X6200.

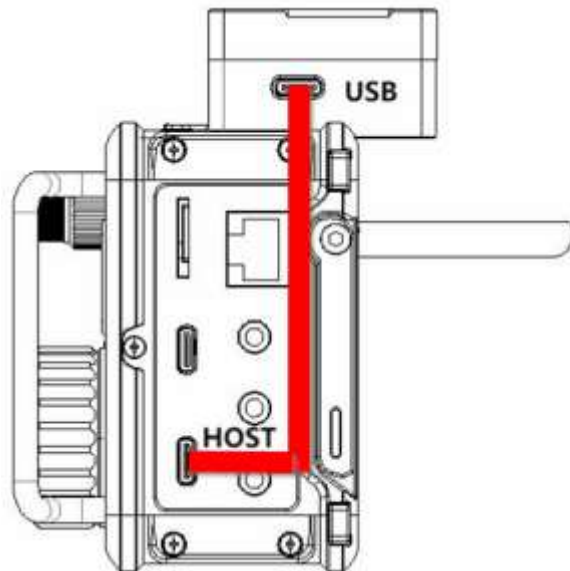
#### 4.1 Cable connection of the Xiegu WR12 to the Xiegu X6200

Connect the Xiegu WR12 port marked "RIG" to the BNC antenna-output of the Xiegu X6200 using the supplied SMA-m to BNC-m cable that comes with the Xiegu WR12.





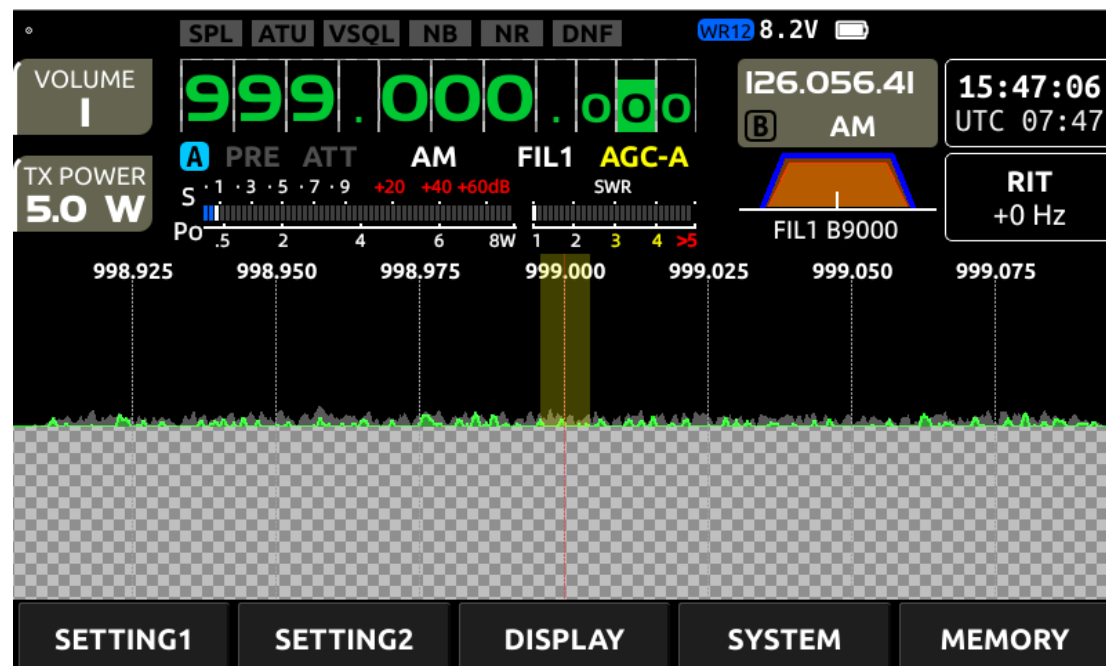
Connect the USB-C port of the Xiegu WR12 to the USB-C port marked "HOST" of the Xiegu X6200 using the USB-C cable that comes with the Xiegu WR12.



This completes the cable connections of the Xiegu WR12.

## 4.2 Using the Xiegu WR12

With the Xiegu WR12 connected to the antenna and the Xiegu X6200 as described you will see the blue WR12-logo **WR12** in the upper right of the main screen, left of the voltage reading.



The Xiegu X6200 operates as normal for frequencies below 54 MHz. Frequencies below 54 MHz just pass-through the WR12 without any alteration. Frequencies above 54 MHz will disable any TX activity and route the antenna signal via the Xiegu WR12 down-converter to the Xiegu X6200. The frequency displayed on the Xiegu X6200 is the actual frequency of the signal received by the Xiegu WR12.

**Receiving sensitivity of the Xiegu WR12 (AM/NFM/SSB = 10 dB S/N)**

| Frequency      | AM     | NFM     | SSB     |
|----------------|--------|---------|---------|
| 54...88MHz     | 0.45µV | 0.4 µV  | 0.15 µV |
| 88...108 MHz   | 0.4 µV | 0.35 µV | 0.15 µV |
| 108...200 MHz  | 0.4 µV | 0.3 µV  | 0.15 µV |
| 200...300 MHz  | 0.8 µV | 0.7 µV  | 0.3 µV  |
| 300...500 MHz  | 0.4 µV | 0.3 µV  | 0.15 µV |
| 500...700 MHz  | 0.5 µV | 0.4 µV  | 0.2 µV  |
| 700...1000 MHz | 0.6 µV | 0.45 µV | 0.15 µV |

All technical data subject to be changed without further notice.

## 5 Where to find further information?

On the Internet you will find a variety of sources with information about the Xiegu X6200. When watching videos make sure that the Xiegu X6200 in the video is at the same firmware level as yours (features can change and bugs may be fixed between firmware revisions).

### 5.1 Radioddity support area

Please note that you can find all firmware, software and Xiegu user manuals in the support section of our official Radioddity website by following these steps:

<https://www.radioddity.com/> → Support → Xiegu → WF12



As soon as a new file is available, these will be published in our support area.

### 5.2 Xiegu-X6200 group on groups.io

All users of the Xiegu X6200 and the WR12 also find valuable help via the Xiegu X6200 group within groups.io. Visit <https://groups.io/g/xiegu-x6200> to join the Xiegu-X6200 group with its increasing number of members. **Make sure your 'Display name' states either your first + last name or your first name + callsign.** Within that group there is also a subgroup focused on the WR12 only.

## 6 Recycling regulations

Electrical and electronic equipment shouldn't be disposed of along with household waste. It may contain hazardous substances which, if exposed, could cause a serious detrimental effect on the environment, wildlife, and human health. Please act accordingly and follow any local regulations that apply to your geographical area. Please observe the relevant regulations and laws of your place of residence.

### 6.1 EU - Recycling Waste of Electrical and Electronic Equipment (WEEE)

#### How to dispose of waste of electrical and electronic equipment

Electrical and electronic equipment (EEE) shouldn't be disposed of along with household waste. EEE may contain hazardous substances which, if exposed, could cause a serious detrimental effect on the environment, wildlife, and human health.

For more information on the WEEE directive, including how to ensure the safe disposal of your electrical and electronic equipment, search for "WEEE Directive" on the web.

Products that should not be disposed of along with household waste will be marked with this icon:



#### How do I dispose of my old electrical or electronic equipment?

If you'd like to dispose of electrical or electronic equipment for recycling you can also:

- Take it to an authorized recycling collection point run by your local authority.
- Take part in national recycling campaigns.

#### Tips for removing personal data from electrical and electronic devices

If you are an owner of a personal electronic device that is covered by the WEEE Directive such as a computer, mobile phone, or camera, you should erase all personal or confidential data before recycling it. You can do this by restoring the device to its factory settings, which is normally done in your device's settings menu.

You should also delete any personal or confidential data on any internal storage device such as a memory or SIM card.

- Back up any sensitive data such as photos, contacts and messages.
- If possible, restore the device to its factory settings.
- Sign out of any accounts you're signed into such as Cloud storage, social media, and messaging apps.

If your old piece of EEE is still functional and/or could be repaired for further use, please consider reusing as the first option, either by donating it to a charitable organization, or by giving it to someone else in need. By extending the lifetime of your old equipment, you are also contributing to the efficient use of resources and avoiding additional waste.

## 6.2 Entsorgung von Elektro- und Elektronikgeräten

### Elektro- und Elektronikgeräte

#### Informationen für private Haushalte

Das Elektro- und Elektronikgerätegesetz (ElektroG) enthält eine Vielzahl von Anforderungen an den Umgang mit Elektro- und Elektronikgeräten. Die wichtigsten sind hier zusammengestellt.

#### Getrennte Erfassung von Altgeräten

Elektro- und Elektronikgeräte, die zu Abfall geworden sind, werden als Altgeräte bezeichnet. Besitzer von Altgeräten haben diese einer vom unsortierten Siedlungsabfall getrennten Erfassung zuzuführen. Altgeräte gehören insbesondere nicht in den Hausmüll, sondern in spezielle Sammel- und Rückgabesysteme.

#### Batterien und Akkus sowie Lampen

Besitzer von Altgeräten haben Altbatterien und Altakkumulatoren, die nicht vom Altgerät umschlossen sind, sowie Lampen, die zerstörungsfrei aus dem Altgerät entnommen werden können, im Regelfall vor der Abgabe an einer Erfassungsstelle vom Altgerät zu trennen. Dies gilt nicht, soweit Altgeräte einer Vorbereitung zur Wiederverwendung unter Beteiligung eines öffentlich-rechtlichen Entsorgungsträgers zugeführt werden.

#### Möglichkeiten der Rückgabe von Altgeräten

Besitzer von Altgeräten aus privaten Haushalten können diese bei den Sammelstellen der öffentlich-rechtlichen Entsorgungsträger oder bei den von Herstellern oder Vertreibern im Sinne des ElektroG eingerichteten Rücknahmestellen unentgeltlich abgeben.

Rücknahmepflichtig sind Geschäfte mit einer Verkaufsfläche von mindestens 400 m<sup>2</sup> für Elektro- und Elektronikgeräte sowie diejenigen Lebensmittelgeschäfte mit einer Gesamtverkaufsfläche von mindestens 800 m<sup>2</sup>, die mehrmals pro Jahr oder dauerhaft Elektro- und Elektronikgeräte anbieten und auf dem Markt bereitstellen. Dies gilt auch bei Vertrieb unter Verwendung von Fernkommunikationsmitteln, wenn die Lager- und Versandflächen für Elektro- und Elektronikgeräte mindestens 400 m<sup>2</sup> betragen oder die gesamten Lager- und Versandflächen mindestens 800 m<sup>2</sup> betragen. Vertreiber haben die Rücknahme grundsätzlich durch geeignete Rückgabemöglichkeiten in zumutbarer Entfernung zum jeweiligen Endnutzer zu gewährleisten.

Die Möglichkeit der unentgeltlichen Rückgabe eines Altgerätes besteht bei rücknahmepflichtigen Vertreibern unter anderem dann, wenn ein neues gleichartiges Gerät, das im Wesentlichen die gleichen Funktionen erfüllt, an einen Endnutzer abgegeben wird. Wenn ein neues Gerät an einen privaten Haushalt ausgeliefert wird, kann das gleichartige Altgerät auch dort zur unentgeltlichen Abholung übergeben werden; dies gilt bei einem Vertrieb unter Verwendung von Fernkommunikationsmitteln für Geräte der Kategorien 1, 2 oder 4 gemäß § 2 Abs. 1 ElektroG, nämlich „Wärmeüberträger“, „Bildschirmgeräte“ oder „Großgeräte“ (letztere mit mindestens einer äußeren Abmessung über 50 Zentimeter). Zu einer entsprechenden Rückgabe-Absicht werden Endnutzer beim Abschluss eines Kaufvertrages befragt. Außerdem besteht die Möglichkeit der unentgeltlichen Rückgabe bei Sammelstellen der Vertreiber unabhängig vom Kauf eines neuen Gerätes für solche Altgeräte, die in keiner äußeren Abmessung größer als 25 Zentimeter sind, und zwar beschränkt auf drei Altgeräte pro Geräteart.

### **Datenschutz-Hinweis**

Altgeräte enthalten häufig sensible personenbezogene Daten. Dies gilt insbesondere für Geräte der Informations- und Telekommunikationstechnik wie Computer und Smartphones. Bitte beachten Sie in Ihrem eigenen Interesse, dass für die Löschung der Daten auf den zu entsorgenden Altgeräten jeder Endnutzer selbst verantwortlich ist.

### **Bedeutung des Symbols „durchgestrichene Mülltonne“**



Das auf Elektro- und Elektronikgeräten regelmäßig abgebildete Symbol einer durchgestrichenen Mülltonne weist darauf hin, dass das jeweilige Gerät am Ende seiner Lebensdauer getrennt vom unsortierten Siedlungsabfall zu erfassen ist.

We would like to thank all Radioddity customers for their constructive feedback. If you find an error in the firmware of the Xiegu X6200 or in this documentation, or if you miss a function that you would have expected, or even if a detail has not been described to the needed extent, please feel free to write a message to [support@radioddity.com](mailto:support@radioddity.com). In general, firmware updates for your Xiegu X6200 are free of charge. The use of non-Xiegu firmware for this radio is strongly discouraged and may invalidate your warranty.



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