

---

## Inhaltsverzeichnis

## OPEN-HYTERA-OE-MASTER-ENGLISH

[Versionsgeschichte interaktiv durchsuchen](#)

[Visuell Wikitext](#)

**Version vom 31. August 2013, 09:54 Uhr**

**(Quelltext anzeigen)**

[Oe1kbc](#) ([Diskussion](#) | [Beiträge](#))

(Die Seite wurde neu angelegt: „**Kategorie:**  
**DMR** == WINMASTER == by: Kurt OE1KBC  
oe1kbc@oevsv.at On the ÖVSV server we  
installed the DMR OE-MASTER and you can  
use this master for testing issu...”)

**Aktuelle Version vom 1. Februar 2014,  
09:28 Uhr (Quelltext anzeigen)**

[Oe1kbc](#) ([Diskussion](#) | [Beiträge](#))

(21 dazwischenliegende Versionen desselben Benutzers werden nicht angezeigt)

<b>Zeile 1:</b>	<b>Zeile 1:</b>
– <b>[[Kategorie:DMR]]</b>	+ <b>== DMR DigitalMaster ==</b>
– <b>== WINMASTER ==</b>	
by: Kurt OE1KBC oe1kbc@oevsv.at	by: Kurt OE1KBC oe1kbc@oevsv.at
<b>Zeile 9:</b>	<b>Zeile 8:</b>
== Parameters ==	== Parameters ==
* Repeater Type: ""IP Multi-Site Master""	* Repeater Type: ""IP Multi-Site Master""
– * Jitter Buffer Length: "" <b>3</b> ""	+ * Jitter Buffer Length: "" <b>8</b> ""
* Authentication Key: ""!! leave empty !!""	* Authentication Key: ""!! leave empty !!""
* IP Multi-site Networking UDP Port: ""62015""	* IP Multi-site Networking UDP Port: ""62015""
<b>Zeile 15:</b>	<b>Zeile 14:</b>
* IP Multi-Site Service: ""checked""	* IP Multi-Site Service: ""checked""
* IP Multi-Site Service UDP Port: ""62016""	* IP Multi-Site Service UDP Port: ""62016""
– * RDAC: "" <b>unchecked</b> ""	+ * RDAC: "" <b>checked</b> ""
	+ * <b>Remote RDAC UDP Port: ""62017""</b>
* Super Master Service: ""checked""	* Super Master Service: ""checked""
* Super Master IP: ""178.188.156.53""	* Super Master IP: ""178.188.156.53""
* Super Master UDP Port: ""62005""	* Super Master UDP Port: ""62005""

<p>* Super Master Multi-Site Service: ""checked""</p>	<p>* Super Master Multi-Site Service: ""checked""</p>
<p>* Super Master Multi-Site UDP Port: ""62006""</p>	<p>* Super Master Multi-Site UDP Port: ""62006 "" as standard port. Please ask WinMaster SYSOP for your own individual port</p>
	<p>* Super Master RDAC Service: ""checked""</p>
	<p>* Super Master RDAC UDP Port: ""62007""</p>
<p>Please note: Use the UDP-Port "62006" only for the first tests and QSOs. After that you will get a fixed UDP-Port. This Port identify you repeater to routing- and informations systems.&lt;br/&gt;</p>	
<p>Only with a fix UDP-Port you can use all the features in the WinMaster system. You can get this fix port form your WinMaster administrator. In Austria please contact me oe1kbc@oevsv.at&lt;br/&gt;</p>	
<p>== Server ID ==</p>	<p>== Server ID using RDAC Service ==</p>
<p>The HYTERA Repeaters to not give their ID to the network streams so i've to take this information from "Super Master Multi-Site UDP" Port.&lt;br/&gt;</p>	<p>DigitalMaster versions larger then 8.0 are able to read the programmed Repeater Parameters.</p>
<p>Therefore, if you use the default UPD- Port 62006 no Server-ID can be calculated.&lt;br/&gt;</p>	<p>* DMR Repeater ID</p>
<p>Es gibt daher in Abstimmung mit Torsten DG1HT bzw. mit mir OE1KBC folgende Möglichkeiten:&lt;br/&gt;</p>	<p>* Repeater callsign</p>
<p>Super Master Multi-Site UDP Port: ""6FRLL""&lt;br/&gt;</p>	<p>* Repeater TX frequency</p>
<p>6....fix&lt;br/&gt;</p>	<p>* Repeater RX frequency or shift</p>
<p>F....lfd.Nr. pro Region 1-4&lt;br/&gt;</p>	

– **R....Region 1-9 (in OE Bundesland 1-9 in DL evt. 1.Stelle Plz.)<br/>**

– **LL...Landeskenner letzten beiden Stellen (OE...2<32> DL... 2<62> HB9...2<28>)<br/>**

So hat z.B.:<br/>

– **der zweite Repeater in OE8 ""62832"" oder<br/>**

– **der dritte Repeater in DL Plz.Gebiet 4 ""63462""**

– **== Zeitschlitz / Sprechgruppen ==**

– **\* LOKAL - Der Zeitschlitz TS1 ist komplett lokal gehalten. Bitte TG9 verwenden aus Kompatibilität.<br/>**

– **\* ECHO - Als Besonderheit am Zeitschlitz TS1 gibt es eine Echo Funktion. Alles was auf TG9990 gesprochen wird, wird nach loslassen der PTT wiederholt.<br/>**

– **\* NATIONAL - Der Zeitschlitz TS2 ist mit TG9 auch für lokal benutzbar. Mit TG232 ist OE weite Verbindung möglich<br/>**

– **\* INTERNATIONAL - Mit TG1 ist internationale Vernetzung (dzt. DL ca. 5 Repeater) möglich.<br/>**

**A Repeater with activated Super Master RDAC Service is able to transfer the parameters to the DigitalMaster. This information will be transferd to the S/BMaster system. So we can display this informations on the DashBoard. Please keep in mind to coordinate the Repeter IDs and store them to the DMR-MARC database. So we do not run in conflicts on international calls.**

**== Timeslots / Talkgroups ==**

**\* local QSOs - the timeslot TS2 should be complete free for local QSOs. Please use TG9 to be compatible to the network issues.<br/>**

**\* echo function- as a special we offer on TS2 a echo function. All you speak to TG9990 on TS2 will be responded after release of PTT.<br/>**

**\* national QSOs - the timeslot TS1 with TG9 you can also be used for local QSOs. With your country code (e. q. in OE TG232 or TG3 in USA) you can make nation wide QSOs<br/>**

**\* international QSOs - with TG1 on TS1 you are connected to all repeaters WW (US, EU, ...).<br/>**

– == LastHeard ==

via <http://87.106.3.249/dmr> kann eine LastHeard Liste abgefragt werden. Diese wird noch in die allgemeine DMR LastHeard Liste eingefügt.

+ == HYTERA DashBoard / LastHeard ==

the link <http://ham-dmr.de/dmr/> show the LastHeard information. This can show you the right function of the DigitalMaster installation.<br/>

+ You can also reach the overview which repeaters are ONLINE to the OPEN-HYTERA-NET:<br/>

+ [http://ham-dmr.de/1repeater\\_status.php](http://ham-dmr.de/1repeater_status.php) <br/>

+ And also an overview to control which talkgroups are linked to each repeater is shown:<br/>

+ <http://ham-dmr.de/group.php> <br/>

– == Software Erweiterungen ==

Die Software wurde von Torsten DG1HT übernommen und für den OE-MASTER angepasst.<br/>

Da diese Software komplett von Amateuren geschrieben wird können in Kürze folgende Features realisiert werden:

– \* CALL-Sign Routing (Das Programm verbindet automatisch mit dem Zielrepeater)

– \* Repeater Routing (nur die für das QSO erforderlichen Repeater sind in Betrieb)

+ == DigitalMaster Software ==

The DigitalMaster software is written with .NET C# and connect the repeaters to the network.<br/>

+ The parameters in the properties form give you the possibilities to assign talkgroups to your slots. So you can make your own local TGs and bind repeaters to a local DMR-Network. So it is possible to connect the local repeaters (connected to the same DigitalMaster) on TS2 with TG9. This is a local area connection.<br/>

+ If you run more than one DigitalMaster on the same SMaster (see routing concept) you can decide on every DigitalMaster how to connect the DigitalMasters together.<br/>

+ The three step model give us a dynamic structure for the future.

<ul style="list-style-type: none"><li>- * dynamische Repeater Gruppen (Repeater können vom User dynamisch zusammen geschaltet werden)</li></ul>	+	<ul style="list-style-type: none"><li>* DigitalMaster build the repeater connections and the network for the region</li></ul>
	+	<ul style="list-style-type: none"><li>* SMaster combine the DigitalMaster regions to a nationwide network</li></ul>
	+	<ul style="list-style-type: none"><li>* BMaster combine nations to continents</li></ul>
	+	 
<ul style="list-style-type: none"><li>- == OE-MASTER ONLINE ==</li></ul>	+	<ul style="list-style-type: none"><li>here a picture from ÖVSV HYTERA-DMR OE-MASTER main- and properties page</li></ul>
<ul style="list-style-type: none"><li>- Die OE-MASTER Software ist in .NET C# programmiert und ist für das Routing der HYTERA Repeater zuständig.&lt;br/&gt;</li></ul>		
<ul style="list-style-type: none"><li>- In der Parametermaske werden die Routen eingetragen. Es wird auch festgelegt welche Zeitschlitzte benutzt werden.&lt;br/&gt;</li></ul>		
<ul style="list-style-type: none"><li>- Weiters legt der OE-MASTER auch fest wie der nächste MASTER Server erreicht werden kann.&lt;br/&gt;</li></ul>		
<ul style="list-style-type: none"><li>- Über diese Struktur können Regionen, Länder und Kontinente im Routing erreicht werden.&lt;br/&gt;</li></ul>		
<ul style="list-style-type: none"><li>- Natürlich ist auch ein zentraler Server für die Darstellung der LastHeard Informationen angebbbar.&lt;br/&gt;</li></ul>		
<ul style="list-style-type: none"><li>- Das System wir durch diese Struktur sehr dynamisch gehalten und erfordert keine großartigen Struktur-Planungen.</li></ul>		
<ul style="list-style-type: none"><li>- </li></ul>		
<ul style="list-style-type: none"><li>- Hier ein Bild vom ÖVSV HYTERA-DMR OE-MASTER</li></ul>		

[[Bild:OE-MASTER-PRINT.jpg 500px OPEN HYTERA OE MASTER]]	
- == <b>Fragen zu</b> OE-MASTER ==	+ == <b>Questions to the software and the DigitalMaster (OE-MASTER) in OE</b> ==
- <b>Bei Fragen zum Server:</b> EMail <b>an</b> oe1kbc@oevsv.at	+ <b>please</b> EMail <b>to</b> oe1kbc@oevsv.at

Aktuelle Version vom 1. Februar 2014, 09:28 Uhr

Inhaltsverzeichnis

1 DMR DigitalMaster .....	8
2 Parameters .....	8
3 Server ID using RDAC Service .....	8
4 Timeslots / Talkgroups .....	9
5 HYTERA DashBoard / LastHeard .....	9
6 DigitalMaster Software .....	9
7 Questions to the software and the DigitalMaster (OE-MASTER) in OE .....	10

---

## DMR DigitalMaster

---

by: Kurt OE1KBC oe1kbc@oevsv.at

On the ÖVSV server we installed the DMR OE-MASTER and you can use this master for testing issues.

You can connect with HYTERA RD985 or RD965 repeater with the IP Multi-Site Service license installed. The connection is done via the "Supermaster" service.

---

## Parameters

---

- Repeater Type: **IP Multi-Site Master**
- Jitter Buffer Length: **8**
- Authentication Key: **!! leave empty !!**
- IP Multi-site Networking UDP Port: **62015**
- P2P Firewall Open Time (sec): **6**
- IP Multi-Site Service: **checked**
- IP Multi-Site Service UDP Port: **62016**
- RDAC: **checked**
- Remote RDAC UDP Port: **62017**
- Super Master Service: **checked**
- Super Master IP: **178.188.156.53**
- Super Master UDP Port: **62005**
- Super Master Multi-Site Service: **checked**
- Super Master Multi-Site UDP Port: **62006** as standard port. Please ask WinMaster SYSOP for your own individual port
- Super Master RDAC Service: **checked**
- Super Master RDAC UDP Port: **62007**

---

## Server ID using RDAC Service

---

DigitalMaster versions larger then 8.0 are able to read the programmed Repeater Parameters.

- DMR Repeater ID
- Repeater callsign
- Repeater TX frequency
- Repeater RX frequency or shift

A Repeater with activated Super Master RDAC Service is able to transfer the parameters to the DigitalMaster. This information will be transferd to the S/BMaster system. So we can display this informations on the DashBoard. Please keep in mind to coordinate the Repeter IDs and store them to the DMR-MARC database. So we do not run in conflicts on international calls.



---

## Timeslots / Talkgroups

---

- local QSOs - the timeslot TS2 should be complete free for local QSOs. Please use TG9 to be compatible to the network issues.
- echo function- as a special we offer on TS2 a echo function. All you speak to TG9990 on TS2 will be responded after release of PTT.
- national QSOs - the timeslot TS1 with TG9 you can also be used for local QSOs. With your country code (e.g. in OE TG232 or TG3 in USA) you can make nation wide QSOs
- international QSOs - with TG1 on TS1 you are connected to all repeaters WW (US, EU, ...).

---

## HYTERA DashBoard / LastHeard

---

the link <http://ham-dmr.de/dmr/> show the LastHeard information. This can show you the right function of the DigitalMaster installation.

You can also reach the overview which repeaters are ONLINE to the OPEN-HYTERA-NET:

[http://ham-dmr.de/1repeater\\_status.php](http://ham-dmr.de/1repeater_status.php)

And also an overview to control which talkgroups are linked to each repeater is shown:

<http://ham-dmr.de/group.php>.

---

## DigitalMaster Software

---

The DigitalMaster software is written with .NET C# and connect the repeaters to the network.. The parameters in the properties form give you the possibilities to assign talkgroups to your slots. So you can make your own local TGs and bind repeaters to a local DMR-Network. So it is possible to connect the local repeaters (connected to the same DigitalMaster) on TS2 with TG9. This is a local area connection.

If you run more than one DigitalMaster on the same SMaster (see routing concept) you can decided on every DigitalMaster how to connect the DigitalMasters together.

The three step model give us a dynamic structure for the future.

- DigitalMaster build the repeater connections and the network for the region
- SMaster combine the DigitalMaster regions to a nationwide network
- BMaster combine nations to continents

here a picture from ÖVSV HYTERA-DMR OE-MASTER main- and properties page

DMR+ MASTER 7.00 Linux 64Bit												
HOME	Fri Mar 20 14:17:19 2015											
SYSTEM	DMR MASTER CONFIG											
LOGFILE												
GPS-USER	SYSOPEMAIL	LocalMasterName	Locator_ID	TS1_INTERN	TS1_EXTERN	RefLink	Ref unlink	sMaster_IP				
	oe1kbc@chello.at	OE-Vienna	2322	1,2,20,232	1,2,20,232	User Link On	User Unlink On	44.143.9.60				
DONGLE	REPEATER ON MASTER											
RPT-GEO	DmrID	CALL	LOGINTIME	IP	TX	QRG	RX	QRG	SHIFT	START	REFRT	Reflector
	CONF1G	232100	OE1XAR	Fri Mar 20 09:15:00 2015	44.143.9.70	62006	438.5000	430.9000	-7.6	4191/15	Link 4191	232 1 20
RPT-MAP	CONF1G	228391	HB9BO	Fri Mar 20 09:15:00 2015	213.202.59.75	62006	439.4125	431.8125	-7.6	4180/15	Link 4180	228 1 20
	CONF1G	232108	OE1XKK	Fri Mar 20 09:15:00 2015	44.143.9.72	62006	438.6000	431.0000	-7.6	4198/15	Link 4198	232 1 20
DMR-LIVE	CONF1G	262400	DE1ONG	Fri Mar 20 09:15:00 2015	217.191.49.246	62006	438.9000	431.3000	-7.6	4006/15	Link 4006	262 1 20
	CONF1G	232192	OE1XQU	Fri Mar 20 09:15:00 2015	44.143.8.68	62006	438.4500	430.8500	-7.6	4180/15	Link 4180	232 1 20
USER	CONF1G	232605	OE1XCD	Fri Mar 20 09:15:00 2015	81.217.111.56	62006	438.9750	431.3750	-7.6	4191/15	Link 4191	232 1 20
	CONF1G	232604	OE1XBE	Fri Mar 20 09:15:00 2015	185.29.89.105	62006	438.9125	431.3125	-7.6	4196/15	Link 4196	232 1 20
USER+	CONF1G	232191	OE1XNK	Fri Mar 20 09:15:00 2015	44.143.9.52	62006	438.4250	430.8250	-7.6	4180/15	Link 4180	232 1 20
	CONF1G	262899	DE60NA	Fri Mar 20 09:15:00 2015	212.125.105.170	62006	439.5875	431.9875	-7.6	4198/15	Link 4198	20 1
REF-LIST	CONF1G	232893	OE1XNK	Fri Mar 20 09:15:01 2015	44.143.19.50	62006	438.4250	430.8250	-7.6	4191/15	Link 4191	232 1 20
	CONF1G	232391	OE1XTR	Fri Mar 20 09:15:01 2015	82.218.27.11	62006	438.4000	430.8000	-7.6	4191/15	Link 4191	232 1 20
REF-LIST+	CONF1G	232303	OE1XHB	Fri Mar 20 09:15:02 2015	44.143.9.73	62006	438.4250	430.8250	-7.6	4193/15	Link 4193	232 1 20
	CONF1G	232703	OE1XTI	Fri Mar 20 09:15:02 2015	44.143.9.77	62006	438.3500	430.7500	-7.6	4197/15	Link 4197	232 1 20
MASTER	CONF1G	232991	OE1XVJ	Fri Mar 20 09:15:02 2015	84.115.117.45	62006	438.5000	430.9000	-7.6	4199/15	Link 4199	232 1 20
	CONF1G	232601	OE1XAG	Fri Mar 20 09:15:02 2015	44.143.9.71	62006	438.6000	431.0000	-7.6	4196/15	Link 4196	232 1 20
	CONF1G	262411	DE1MRH	Fri Mar 20 09:15:03 2015	91.16.219.64	62006	439.0375	431.4375	-7.6	NO SET	NO-LINK	262 1 20 10
	CONF1G	232193	OE1XQU	Fri Mar 20 09:15:03 2015	44.143.26.50	62006	145.5875	144.9875	-0.6	4191/15	Link 4191	232 1 20
RepeaterOnline: 17    ...    Voice: GER    EFN:off    SPING: 41.50 ms    Build: 000    Start Time: Fri Mar 20 09:14:57 2015												

Questions to the software and the DigitalMaster (OE-MASTER) in OE

please EMail to oe1kbc@oevsv.at