

TSAN 049

Dataradio Technical Support

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Within the U.S.A.	1-800-992-7774	International	1-507-833-8819
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Product: HiPR-900™

Application: HiPR peer to peer communication

Peer to peer traffic in a HiPR network (router mode) is routed through the Master Synch radio. The Remote 1 to Remote 2 traffic in Figure 1 is Remote 1 to Master Synch to Remote 2. The route may be verified by using the tracert command.

```
C:\>tracert 192.168.205.200
Tracing route to 192.168.205.200 over a maximum of 30 hops
  1    <1 ms    <1 ms    <1 ms    192.168.206.21
  2    36 ms    39 ms    39 ms    10.0.0.140
  3    74 ms    79 ms    79 ms    192.168.205.200
```

It may be desirable, in some applications, to communicate directly between two remotes. This document is intended to provide the information necessary to implement peer to peer communication.

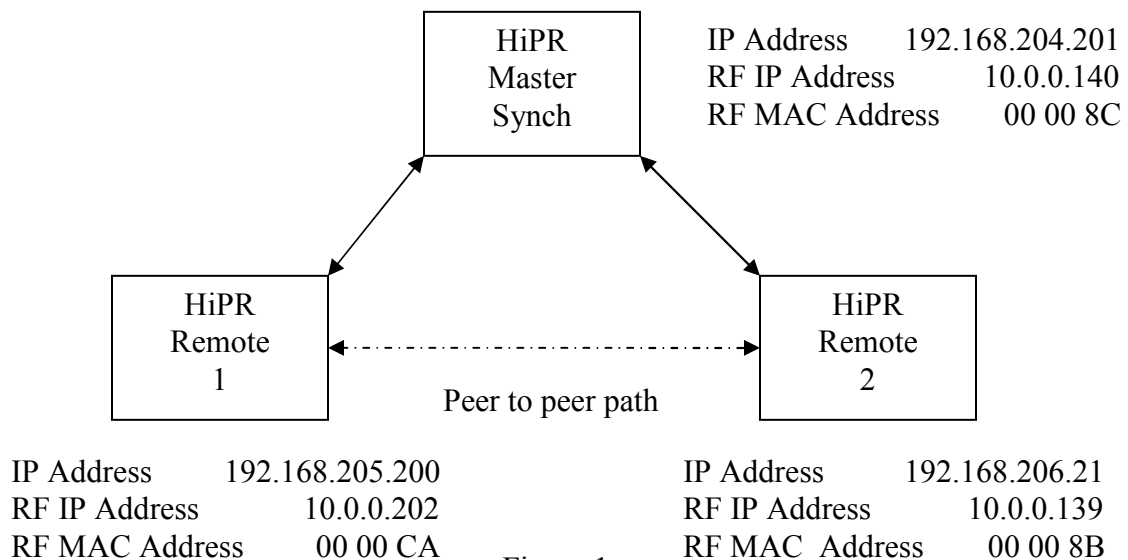


Figure 1

NOTE: The RF MAC address is found on the Setup (Advanced) > RF (IP) screen.

Programming: Peer to peer communication is enabled by manually adding the neighbor(s) in the OIP context table. The OIP context table must be updated in the remotes which are to have direct communication. Using the system in Figure 1 as an example, proceed as follows.

1. Open a telnet connection to Remote 1. You may also use a DE-9 port on the radio if the port is programmed for CLI mode.
2. Display the OIP table using the following command: `oip.context.show`
The following table will be returned.

211	IP_ADDR	MAC_ADDR	CONTEXT_STATUS	PROXY_STATUS
211	10.0.0.140	8c	normal	disable

This table displays the current OIP context. The OIP context displays the radios which Remote 1 can “see” on the RF network.

3. Add the OIP context for Remote 2 using the following command:
`Oip.context.add 10.0.0.139 8B 0`
The syntax is Command (Oip.context.add), RF IP address of unit to be added (10.0.0.139), MAC address (hex) of unit to be added (8B), TCP Proxy (Enable 1, Disable 0).
4. Save the configuration. Type `save<enter>`.
5. Display the OIP table: `oip.context.show`
The table should now display:

211	IP_ADDR	MAC_ADDR	CONTEXT_STATUS	PROXY_STATUS
211	10.0.0.140	8c	normal	disable
211	10.0.0.139	8b	normal	disable

6. Open a telnet connection to Remote 2.
Display the OIP table using the following command: `oip.context.show`
The following table will be returned.

211	IP_ADDR	MAC_ADDR	CONTEXT_STATUS	PROXY_STATUS
211	10.0.0.140	8C	normal	disable

This table displays the current OIP context. The OIP context displays the radios which Remote 2 can “see” on the RF network.

7. Add the OIP context for Remote 1 using the following command:
`Oip.context.add 10.0.0.202 CA 0`
8. Save the configuration. Type `save<enter>`.
9. Display the OIP table: `oip.context.show`
The table should now display:

211	IP_ADDR	MAC_ADDR	CONTEXT_STATUS	PROXY_STATUS
211	10.0.0.202	ca	normal	disable
211	10.0.0.139	8b	normal	disable

Remote 1 will now communicate directly to Remote 2. Traffic will no longer be routed through the Synch Master. The new route may be verified by using the tracert command.

```
C:\>tracert 192.168.205.200
Tracing route to 192.168.205.200 over a maximum of 30 hops
 1      <1 ms      <1 ms      <1 ms      192.168.206.21
 2      37 ms      39 ms      39 ms      192.168.205.200
```