



**RCA**  
Communications Systems

## PRODIGI™ PLUS TRUNKING



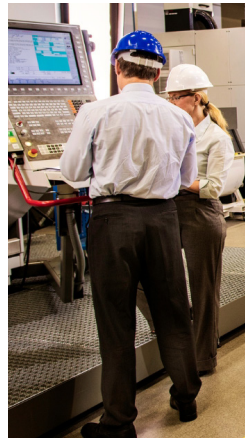
- Single-Site digital trunking system without dedicated control channel.
- Efficient and cost-effective two-way radio communication solution for large businesses or multi-department use, where repeater is needed for larger area coverage.
- Easy deployment and large capacity, scalable up to 8 Repeaters and 16 Channels.



## Overview

In today's busy and competitive business environment workers need to be more productive and efficient than ever before, to keep the business running smoothly. Keeping the production line running smoothly, handling shipments and materials in the warehouse or at the port, managing maintenance at large resorts or sports complexes, all rely heavily on constant exchange of critical voice and data communications.

RCA PRODIGI™ PLUS Trunking is a cost-effective digital trunking system that increases the communications capacity up to 4 times compared to a conventional digital two-way radio system. Ideal for businesses and government agencies with a larger number of workers, PRODIGI™ PLUS Trunking expands the communication capacity to a maximum of 16 voice and data channels for up to 32 departments and 1,200 users. The system offers exceptional voice quality helping workers to communicate seamlessly throughout the facility, allowing them to get their job done safely and more efficiently. Industries such as manufacturing, warehousing, construction, casinos, hotels, resorts, sports complexes and many more, can all benefit from its scalability, voice quality and advanced safety features.



## PRODIGI™ PLUS Trunking System Components



### REPEATERS

- RDR9000 Repeaters (min. of two (2) units)
- RF Filter System\*
- Ethernet Network Switch
- 19" Rack, Case or Cabinet Unit

### SUBSCRIBER UNITS

- RDR7x50 Series Portables
- RDR5550 Series Mobiles

\* Consult with your Authorized RCA Communications Systems Dealer.

## System Capabilities

- **Upgrade to PRODIGI™ PLUS Trunking at Your Own Speed**

If you already have the RCA RDR9000 repeaters and the RDR5550/RDR7x50 Series mobile and portable radios you can upgrade to PRODIGI™ PLUS Trunking with just a software upgrade, without needing to purchase brand new radio equipment.

- **Scalable Channel Capacity**

Each single site PRODIGI™ PLUS Trunking System supports up to 8 repeaters / 16 channels for up to 16 simultaneous calls, able to support up to 1200 radio users in up to 32 departments/groups. Easily expandable by simply adding additional RDR9000 repeaters to the system.

- **No Dedicated Control Channel**

The PRODIGI™ PLUS Trunking System is designed to function without a dedicated centralized control channel, which provides a simple yet robust, fault-tolerant operation. Additionally this design increases the system resources as the absence of a dedicated control channel allows for that channel to be used as available traffic channel.

- **Redundant Design**

If a repeater in the PRODIGI™ PLUS Trunking System is down, the remaining repeaters in the system will continue to operate without interruption at a temporarily reduced capacity. The system is assigned a default control unit, however in the event of failure of the control unit, any of the remaining repeaters in the system can take control ensuring continuous operation.

- **P2P and Forward Dual IP System Design**

Repeaters connect directly to each other and share resources without requiring a separate control unit. This design ensures the simplicity and reliability of the system.

- **RDAC Support**

Supports the RCA RDAC, a remote repeater diagnostic software to help provide remote, over the internet, access to your PRODIGI™ PLUS Trunking System for monitoring and performance diagnostics.

### Voice Services

- Private Call
- Group Call
- All Call
- Emergency Call

### Data Services

- Text Message
- Status Message
- GPS

### Supplementary Services

- Radio Check
- Call Alert
- Radio Disable
- Radio Enable
- Emergency Alarm
- Remote Monitor

### Advanced Features

- Encryption
- RDAC Remote Monitoring

## PRODIGI™ PLUS Trunking System Operation

The RCA PRODIGI™ PLUS Trunking system allows the connection of up to 8 RCA RDR9000 DMR Tier II repeaters, programmed to operate in DMR mode, into a collective system with up to 16 traffic channels. The system then allows for subscriber mobile (RDR5550) and portable (RDR7350, RDR7550) radios to access any of the channels, depending on availability at the time the call request is made (PTT) without physically locking the subscriber radios to a particular channel.

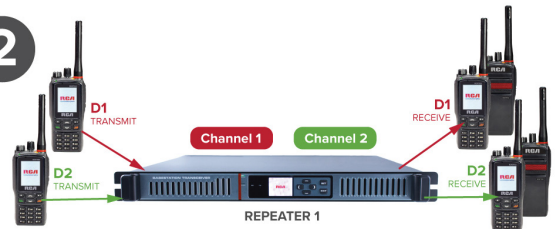
In the example below a large corporation has six departments each needing to have an individual communication channel, through a repeater, to ensure optimum coverage throughout the facility: D1, D2, D3, D4, D5 and D6. If using single stand-alone repeaters the departments will be sharing and will be physically assigned to a specific repeater and channel. This is very inefficient as each repeater only provides 2 simultaneous communication channels, which brings greater possibility for traffic congestion leading often to inaccessibility of the channels.

1



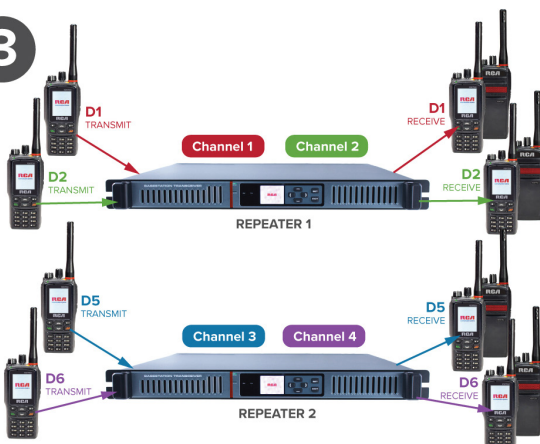
- ● ● All channels are free, no calls.

2



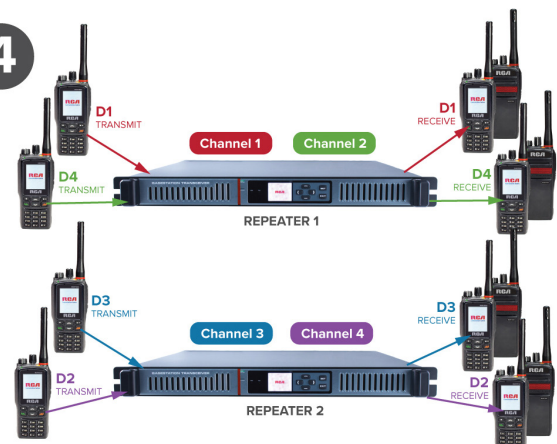
- Channel 1 is in use by D1.
- Channel 2 is in use by D2.
- ● Channels 3 and 4 are still free.

3



- Channel 1 is in use by D1.
- Channel 2 is in use by D2.
- Channel 3 is in use by D5.
- Channel 4 is in use by D6.

4



- Channel 1 is still in use by D1.
- Channel 2 frees up and is then in use by D4.
- Channel 3 frees up and is then in use by D3.
- Channel 4 frees up and is then in use by D2. (previously on Channel 2).