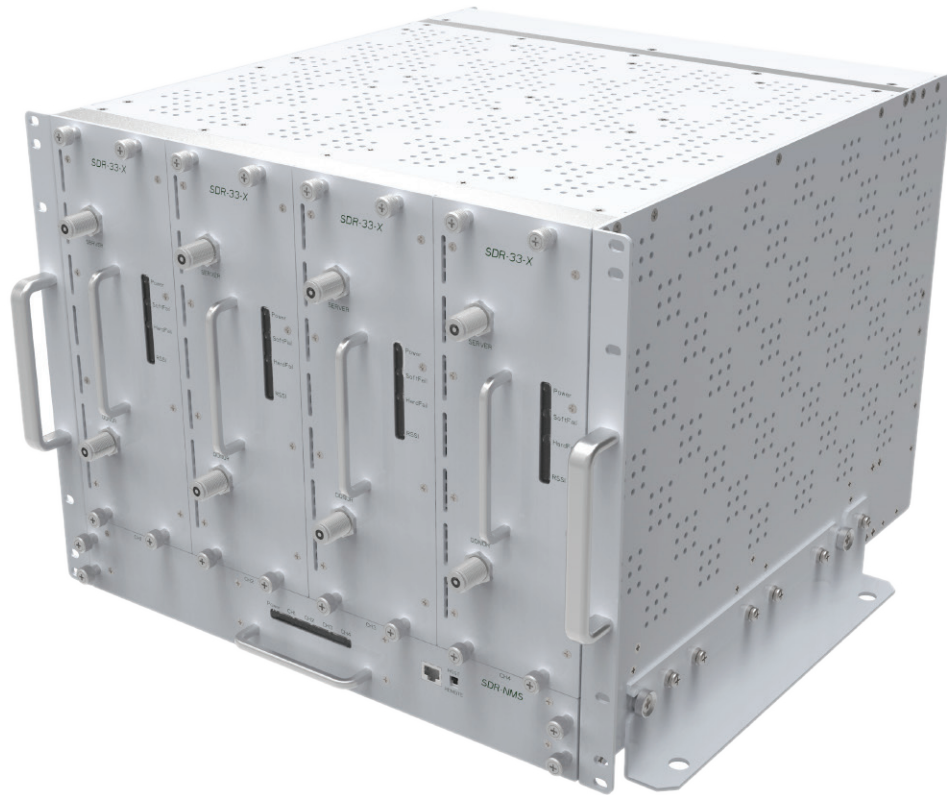


# SDR-24/30/33

Software Defined Repeater (with SDR-NMS)

The SDR's modular design and sophisticated digital filtering helps reject adjacent carrier signals, making it the next generation RF repeater solution. The SDR is perfect for venues where voice and data coverage are limited. The user-friendly GUI makes configuring the unit quick and accurate while AGC, oscillation detection, and overload shutdown features help your network maintain the highest levels of performance.

The SDR series also supports both local connection via DHCP or remote connection via external wireless modem, allowing you to monitor your extended network at any time.



## Product Features

- Future-proof modular design for maximum flexibility
- Modular structure supports quad-band service in one body
- Supports mixing and matching of various output power levels
- Support for multiple modules using same technology or frequency band
- Hot-swappable modules to minimize downtime
- 80/90/95 dB of max gain and up to 24, 30, or 33 dBm max output power
- Channelized digital filtering with sharp roll-off
- Intuitive and easy to use web-based GUI
- Support for external wireless modem for remote control and alarming
- Optional channel combiner module provides maximum flexibility for donor/server configurations

# Product Specifications

## SDR-24/30/33 Modular Digital Repeater



### Electronic Specifications

|                    |     | SMR 800/900<br>SDR-24/30/33-S                         | 600 MHz<br>SDR-30-600                                 | 700 MHz<br>SDR-24/30/33-700F                     | Cell<br>SDR-24/30/33-C                           | PCS<br>SDR-24/30/33-P                            | AWS<br>SDR-24/30/33-AF                |
|--------------------|-----|---|---|--|--|--|---------------------------------------|
| Frequency          | DL: | 851 - 869 MHz<br>935 - 940 MHz                        | 617 - 652 MHz   | 728 - 757 MHz                                    | 869 - 894 MHz                                    | 1930 - 1995 MHz                                  | 2110 - 2180 MHz                       |
|                    | UL: | 806 - 824 MHz<br>896 - 901 MHz                        | 663 - 698 MHz   | 698 - 716 MHz<br>776 - 787 MHz                   | 824 - 849 MHz                                    | 1850 - 1915 MHz                                  | 1710 - 1755 MHz                       |
| Filtering          |     | 1-2 Selectable bands in blocks 0.25 -18.00 / 5.00 MHz | 1 - 2 selectable bands in blocks of 5/10/15/20.00 MHz | 1-2 selectable bands in blocks of 0.25-18.00 MHz | 1-2 selectable bands in blocks of 0.25-25.00 MHz | 1-3 selectable bands in blocks of 1.25-18.75 MHz | 1-3 selectable band of 1.25-18.75 MHz |
| Gain               |     | 80 dB   | 90 dB   | 90 / 90 / 95 dB                                  |  |  |                                       |
| Output Power       |     | 24 / 30 / 33 dBm                                      | 30 dBm  | 24 / 30 / 33 dBm                                 |  |  |                                       |
| Gain Control Range |     | 30 dB @ 0.5 dB step                                   |   | 40 dB @ 0.5 dB step                              |  |  |                                       |
| Noise Figure       |     | < 6 dB @ Max Gain                                     |   | < 5 dB @ Max Gain                                |  |  |                                       |
| Delay              |     | ≤ 8 μs  | < 5.0 us  | ≤ 6 μs   | ≤ 6.5 μs   | 5 μs   |                                       |
| VSWR               |     | < 1.5 : 1   |   |  |  |  |                                       |
| Filter Roll Off    |     | 65 dBc @ 500 KHz from sub-band edge                   |   | 50 dBc @ 1 MHz from sub-band edge                |  |  |                                       |
| Power Consumption  |     | < 105 / 110 / 145 W                                   | < 115 W   | < 105 / 110 / 145 W                              |  | < 85 / 105 / 155 W                               |                                       |

### Environmental Specifications

|                       |                         |
|-----------------------|-------------------------|
| Operating Temperature | 14°-122° F (-10°-50° C) |
| Relative Humidity     | 5-90% non condensing    |

### Mechanical Specifications

|                       |         |  |                  |                 |  |  |  |
|-----------------------|---------|--|------------------|-----------------|--|--|--|
| Dimension (W x H x D) | Chassis | 19.0 x 14.0 x 19.1 in (482.0 x 356.0 x 485.2 mm)                       |                  |                 |  |  |  |
|                       | Module  | 4.2 x 11.6 x 18.2 in (107.3 x 296.0 x 461.8 mm)                        |                  |                 |  |  |  |
|                       | NMS     | 17.0 x 2.3 x 16.7 in (430.7 x 59.5 x 423.0 mm)                         |                  |                 |  |  |  |
| Weight                | Chassis | 26 lbs (11.7 kg)   |                  |                 |  |  |  |
|                       | Module  | 21 lbs (9.5 kg)  | 24 lbs (10.9 kg) | 21 lbs (9.5 kg) |  |  |  |
|                       | NMS     | 7 lbs (3.2 kg)   |                  |                 |  |  |  |
| AC Power              |         | 110-130V AC, 60 Hz (Default) or 210-240V AC, 60 Hz (Selectable Switch) |                  |                 |  |  |  |
| Network Management    | Local   | RJ45 (Ethernet)  |                  |                 |  |  |  |
|                       | Remote  | Web-GUI, SNMP, SNMP-Traps (External Wireless Modem Required)           |                  |                 |  |  |  |
| RF Connector          |         | N-Type Female  |                  |                 |  |  |  |
| Weather Resistance    |         | IP20   |                  |                 |  |  |  |

# Product Specifications

## SDR-24/30/33 Software Defined Repeater (with SDR-NMS)



### Electronic Specifications

|                    |     | BRS (FDD-LTE)<br>SDR-33-B                | BRS (TDD-LTE)<br>SDR-33-BTF  | BRS (TDD-LTE)<br>SDR-33-BT                                   |
|--------------------|-----|--|--|--|
| Frequency          | DL: | 2620 - 2690 MHz                          | 2496 - 2690 MHz  | 2496 - 2562 / 2502 - 2568 /<br>2618 - 2684 / 2624 - 2690 MHz |
|                    | UL: | 2500 - 2570 MHz                          |  |  |
| Filtering          |     | 1 selectable band of<br>1.25 - 20.00 MHz | FB1 - 5G: 20 - 100MHz / 4G: 5 - 60MHz<br>+ 5 - 20MHz + 5 - 20MHz<br><br>FB2 - 5G: 20 - 100MHz / 4G: 5 - 60MHz<br>+ 5 - 20MHz + 5 - 20MHz<br><br>FB 1 + FB 2 190MHz | 1 - 4 selectable bands in<br>blocks of 1.08 - 30.00 MHz      |
| Gain               |     | 95 dB                                    |  |  |
| Output Power       |     | 33 dBm                                   |  |  |
| Gain Control Range |     | 40 dB @ 0.5 dB step                      |  |  |
| Noise Figure       |     | < 5 dB @ Max Gain                        |  |  |
| Delay              |     | 5 $\mu$ s                                | 5G @ $\leq$ 2.4 $\mu$ s, 4G @ $\leq$ 3.1 $\mu$ s   | 5 $\mu$ s  |
| VSWR               |     | < 1.5 : 1                                |  |  |
| Filter Roll Off    |     | 50 dBc @ 1 MHz<br>from sub-band edge     | 5G: 30 dBc @ 1 MHz from sub-band edge<br>4G: 50 dBc @ 1 MHz from sub-band edge   | 50 dBc @ 1 MHz from sub-band edge                            |
| Power Consumption  |     | < 160 W                                  | 110 W  | < 130 W  |

### Environmental Specifications

|                       |                           |
|-----------------------|---------------------------|
| Operating Temperature | 14° - 122° F (-10°-50° C) |
| Relative Humidity     | 5-90% non condensing      |

### Mechanical Specifications

|                          |         |  |
|--------------------------|---------|--|
| Dimension<br>(W x H x D) | Chassis | 19.0 x 14.0 x 19.1 in (482.0 x 356.0 x 485.2 mm)                         |
|                          | Module  | 4.2 x 11.6 x 18.2 in (107.3 x 296.0 x 461.8 mm)                          |
|                          | SDR-NMS | 17.0 x 2.3 x 16.7 in (430.7 x 59.5 x 423.0 mm)                           |
| Weight                   | Chassis | 26 lbs (11.7 kg)   |
|                          | Module  | 21 lbs (9.5 kg)  |
|                          | SDR-NMS | 7 lbs (3.2 kg)   |
| AC Power                 |         | 110 - 130V AC, 60 Hz (Default) or 210-240V AC, 60 Hz (Selectable Switch) |
| Network<br>Management    | Local   | RJ45 (Ethernet)  |
|                          | Remote  | Web-GUI, SNMP, SNMP-Traps (External Wireless Modem Required)             |
| RF Connector             |         | N-Type Female  |
| Weather Resistance       |         | IP20   |

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