



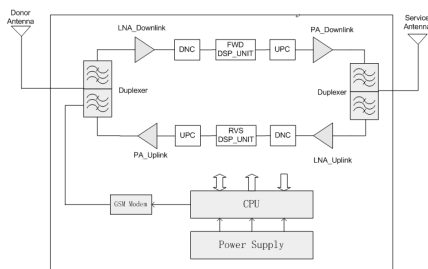
## SUNNY 43dBm Band Selective Repeater

### Model : SUN-RP43-XXX/YYY

Where XXX or YYY is 900,1800, 2100, 2600

- Support up to 3 selected sub-bands within GSM900, DCS1800, WCDMA2100, LTE2600
- 43dBm per band with 90dB gain
- Simple plug-and-play design with single or dual bands selection
- Field upgradable from single band to dual bands unit
- ETSI compliance
- Remote control by SMS or data

### Block Diagram and outlook



### Technical Specification

| Item                                    |                  | Uplink                                   | Downlink                    |
|---|------------------|--|-----------------------------|
| Frequency Range                         | <b>GSM850</b>    | 824-849MHz (max 25MHz)                   | 869-894MHz (max 25MHz)      |
|   | <b>GSM900</b>    | 885-915MHz (max 30MHz)                   | 930-960MHz (max 30MHz)      |
|   | <b>DCS1800</b>   | 1710-1785MHz (max 55MHz)*                | 1805-1880MHz (max 55MHz)*   |
|   | <b>WCDMA2100</b> | 1920-1980MHz (max 55MHz)*                | 2110-2170MHz (max 55MHz)*   |
|   | <b>LTE2600</b>   | 2500-2570MHz (max 55MHz)*                | 2620-2690MHz (max 55MHz)*   |
| Max. Sub-Bands                          | <b>GSM850</b>    | 3 (0.2-20MHz per sub-band)               | 3 (0.2-20MHz per sub-band)  |
|   | <b>GSM900</b>    | 3 (0.2-20MHz per sub-band)               | 3 (0.2-20MHz per sub-band)  |
|   | <b>DCS1800</b>   | 3 (0.2-20MHz per sub-band)               | 3 (0.2-20MHz per sub-band)  |
|   | <b>WCDMA2100</b> | 3 (5/10/15MHz per sub-band)              | 3 (5/10/15MHz per sub-band) |
|   | <b>LTE2600</b>   | 3 (0.2-20MHz per sub-band)               | 3 (0.2-20MHz per sub-band)  |
| <b>Max Gain</b>                         |                  | 90 dB                                    |                             |
| <b>Gain Flatness</b>                    |                  | ≤ ±1.5dB ( p-p )                         |                             |
| <b>Frequency Error</b>                  |                  | ≤0.05ppm                                 |                             |
| <b>ALC Range</b>                        |                  | ≥15dB                                    |                             |
| <b>Gain Control Range(MGC)</b>          |                  | ≥30dB (1 dB step )                       |                             |
| <b>Gain Control Accuracy</b>            |                  | 1~20dB@±1dB<br>>20dB@±1.5dB              |                             |
| <b>Total RF Input Power (no damage)</b> |                  | ≤-10dBm                                  | ≤-10dBm                     |
| Output Power                            | <b>GSM850</b>    | UpLink: ≥17dBm                           | DownLink: ≥43dBm            |
|   | <b>GSM900</b>    | UpLink: ≥17dBm                           | DownLink: ≥43dBm            |
|   | <b>DCS1800</b>   | UpLink: ≥17dBm                           | DownLink: ≥43dBm            |
|   | <b>WCDMA2100</b> | UpLink: ≥17dBm                           | DownLink: ≥43dBm            |
|   | <b>LTE2600</b>   | UpLink: ≥17dBm                           | DownLink: ≥43dBm            |
| <b>Output Power Accuracy</b>            |                  | ≤±/-3dB@-10°C to +55°C                   |                             |
| <b>Spurious Emission</b>                |                  | 9KHz~1GHz≤-36dBm<br>1GHz~12.75GHz≤-30dBm |                             |



|                              |                  |   |         |
|------------------------------|------------------|---|---------|
| <b>Out of band Gain</b>      |                  | GSM comply ETSI EN 300 609 at 0.2MHz out of the set bandwidth<br>WCDMA comply ETSI TS 125 143<br>LTE comply ETSI TS 136 143 |         |
| <b>Noise Figure</b>          | <b>GSM850</b>    | ≤5dB  | ≤5dB    |
|                              | <b>GSM900</b>    | ≤5dB  | ≤5dB    |
|                              | <b>DCS1800</b>   | ≤5dB  | ≤5dB    |
|                              | <b>WCDMA2100</b> | ≤5dB  | ≤5dB    |
|                              | <b>LTE2600</b>   | ≤5dB  | ≤5dB    |
| <b>Group Delay</b>           |                  | ≤6 μsec   | ≤6 μsec |
| <b>V.S.W.R</b>               |                  | ≤1.3  | ≤1.3    |
| <b>Impedance</b>             |                  | 50Ω   | 50Ω     |
| <b>Power Supply</b>          |                  | Input 110V-260VAC ,50Hz   |         |
| <b>Power Consumption</b>     |                  | 200W (Single Band), 400W (Dual Band)  |         |
| <b>Cooling</b>               |                  | Heatsink convection cooling   |         |
| <b>Operating Temperature</b> |                  | -25~+55 °C  |         |
| <b>RF Connector</b>          |                  | N(F)  |         |
| <b>Water Proof</b>           |                  | IP65  |         |
| <b>Dimension</b>             |                  | 513x460x232 mm  |         |
| <b>Weight</b>                |                  | 30Kg  |         |
| <b>MTBF</b>                  |                  | ≥50,000 hours   |         |

\* The user needs to define 55MHz Bandwidth within whole band during ordering stage

#### Ordering Information:

SUN-RP43-XXX: confirm the band when placing order, supporting single band only

SUN-RP43-XXX/YYY: confirm the bands when placing order, maximum supporting dual bands.

#### Options:

SUN-OMS: Sunny Remote Control Software

SUN-RP43-900U: GSM900 Band upgrade kit

SUN-RP43-1800U: DCS1800 Band upgrade kit

SUN-RP43-2100U: WCDMA2100 Band upgrade kit

SUN-RP43-2600U: LTE2600 Band upgrade kit

Technical data are subjected to change without notice – File: SUN-RP43-XXX/YYY datasheet 2018V1.0