HYC-N300cS series 2 watts SISO HT-OFDM Radio has 4 models:

1. **HYC-N300cST-33**
   - Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM PTP / PTMP (CSMA / TDMA) Radio (3 operation modes including: BS / CPE / Bridge)

2. **HYC-N30ccST-33**
   - Outdoor Dual 600 ~ 620 MHz 2W SISO HT-OFDM PTP / PTMP (CSMA / TDMA) Radio (3 operation modes including: BS / CPE / Bridge)

3. **HYC-N300cSCP-33**
   - Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM CPE

4. **HYC-N302cSCR-33gn**
   - Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM CPE Router with 802.11gn WiFi AP

With 2 watts high output power 600MHz HT-OFDM (TDMA protocol) Radio, **HYC-N300cS series** allows you to Share the 4G(LTE) / Fiber / ADSL backhaul bandwidth to several client nodes for NLOS wireless internet access & Ethernet applications. Customer can deploy the radios as Point to Point Bridge or Point to Multi-Point Network.

Built for secure and uninterrupted operation in harsh environments, **HYC-N300cS series** support operating temperature from -30 to +60°C, build-in surge protection circuit (4KV/2KA) and IP-68 aluminum diecasting enclosure.

Applications:
- NLOS Wireless internet
- Internet access service for POS / ATM.
- Data / Voice / Video transmission among crowded buildings.
- Long distance Wireless access in wide rural area, for TWS

Features:
- **600MHz Main System (Option 30 Mhz up to 950 Mhz)**
  - 600MHz 2 Watts Radio with TDMA protocol for wireless access in NLOS environment
  - SISO HT-OFDM Modulation
  - 7 Channel BW ( 2.5 / 3 / 3.5 / 4 / 5 / 6 / 7 MHz )
  - ±2 ppm Frequency Stability for Mobility & NLOS
  - 2.5 bits/s/Hz amazing spectral efficiency
  - GPS Coordinates and Build-in NMS with Map
  - LED RSSI indicators (can be off by software)
  - IEC61000-4-5 Surge Protection
  - IP-68 Water & Dust Resistant

2.4GHz WiFi AP (ATHN300cSCR-33gn only)
- 2.4GHz WiFi AP embedded for coverage.
- 2x2 MIMO HT-OFDM Modulation
- 4 Channel BW ( 5 / 10 / 20 / 40 MHz )
- ±2 ppm Frequency Stability for Mobility & NLOS
- 5.2 bits/s/Hz amazing spectral efficiency

Models:

- **HYC-LTRG-201cSCP-33**
  - 2 watts CPE indoor.

- **HYC-N300cS-33gn**
  - 2 watts PTP and PMPT
  - SISO AP & CPE, outdoor & Wi-Fi AP
RADIO SPECIFICATIONS

Frequency range: 600 ~ 620 MHz
Channel Band Width: 2.5 / 3 / 3.5 / 4 / 5 / 6 / 7 MHz
Frequency Stability: ± 2 ppm
Modulation: SISO HT-OFDM with Proprietary TDMA Protocol

<table>
<thead>
<tr>
<th>MCS Index</th>
<th>Data Rate (Mbps)</th>
<th>Tx Power (dBm)</th>
<th>Rx Sensitivity</th>
<th>Data Rate (Mbps)</th>
<th>Tx Power (dBm)</th>
<th>Rx Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SISO HT-OFDM @ 2.5MHz</td>
<td></td>
<td></td>
<td>SISO HT-OFDM @ 7MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCS0</td>
<td>0.81</td>
<td>33 (±1.5)</td>
<td>-92 dBm</td>
<td>2.36</td>
<td>33 (±1.5)</td>
<td>-90 dBm</td>
</tr>
<tr>
<td>MCS1</td>
<td>1.62</td>
<td>33 (±1.5)</td>
<td>-90 dBm</td>
<td>4.73</td>
<td>33 (±1.5)</td>
<td>-87 dBm</td>
</tr>
<tr>
<td>MCS2</td>
<td>2.44</td>
<td>33 (±1.5)</td>
<td>-87 dBm</td>
<td>7.09</td>
<td>33 (±1.5)</td>
<td>-83 dBm</td>
</tr>
<tr>
<td>MCS3</td>
<td>3.25</td>
<td>31 (±1.5)</td>
<td>-84 dBm</td>
<td>9.45</td>
<td>31 (±1.5)</td>
<td>-81 dBm</td>
</tr>
<tr>
<td>MCS4</td>
<td>4.88</td>
<td>31 (±1.5)</td>
<td>-81 dBm</td>
<td>14.18</td>
<td>31 (±1.5)</td>
<td>-79 dBm</td>
</tr>
<tr>
<td>MCS5</td>
<td>6.50</td>
<td>29 (±1.5)</td>
<td>-77 dBm</td>
<td>18.90</td>
<td>29 (±1.5)</td>
<td>-75 dBm</td>
</tr>
<tr>
<td>MCS6</td>
<td>7.31</td>
<td>29 (±1.5)</td>
<td>-75 dBm</td>
<td>21.18</td>
<td>29 (±1.5)</td>
<td>-73 dBm</td>
</tr>
<tr>
<td>MCS7</td>
<td>8.12</td>
<td>28 (±1.5)</td>
<td>-73 dBm</td>
<td>23.03</td>
<td>28 (±1.5)</td>
<td>-72 dBm</td>
</tr>
</tbody>
</table>

INTERFACES

1 x N-type Female Connectors : HYC-N300cST-33 / HYC-N300cSCP-33
2 x N-type Female Connectors : HYC-N300cST-33 / HYC-N300cSCR-33gn
10/100/1000 Base-T RJ-45 port with M25 Cable Gland

MANAGEABILITY

Management and Setup: Web-based (Chrome / IE 9.0 or later)
SNMP agents: MIB II
Protocol: TCP/IP, IPX/SPX, NetBEUI

Operating mode

HYC-N300cS-33: Base Station / CPE / Peer to Peer Bridge
HYC-N300cSCP-33: Multi-hops Base Station / CPE / Peer to Peer Bridge
HYC-N302cSCR-33gn: CPE router & 2.4GHz 802.11gn AP

Antenna Alignment: WEB GUI Local / Remote Information
Built-in NMS: Live linking status of the network by GPS coordinates and internet map database
Built-in GPS Receiver: Self-locate GPS coordinates to synchronize NMS live linking status (Optional)

SECURITY

Data Encryption: WPA-PSK / WPA2-PSK
Advanced Security: MAC access control / Disable SSID / Proprietary protocol

ENVIRONMENT

Operating Temperature: -30~60 °C
Storage Temperature: -30~70 °C
Humidity: 95% non-condensing

POWER SUPPLY & CONSUMPTION

Power Supply: AC 100-264V, 50-60Hz convert to DC 48V Adapter (Max. 45Watts) with 48VDC POE

Power Consumption

| HYC-N300cST-33 | Power Consumption: 25Watts @48VDC |
| HYC-N300cSCP-33 | 25Watts @48VDC |
| HYC-N302cSCR-33gn | 30Watts @48VDC |

PHYSICAL

Dimension: 259 (L) * 250 (W) * 75 (H) : mm (External antenna model)
Weight: 2Kg
WARRANTY

1 YEAR
## Specifications – 2.4GHz WiFi AP (HYC-N302cSCR-33gn only)

### RADIO SPECIFICATIONS

<table>
<thead>
<tr>
<th>Frequency range</th>
<th>Channel Band Width 5 / 10 / 20 / 40 MHz</th>
<th>Frequency Stability ± 2 ppm</th>
<th>Modulation MIMO HT-OFDM</th>
</tr>
</thead>
</table>

### MCS Index

<table>
<thead>
<tr>
<th>Data Rate (Mbps)</th>
<th>Tx Output Power (dBm)</th>
<th>Rx Sensitivity (BER 1E-10)</th>
</tr>
</thead>
<tbody>
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</thead>
<tbody>
<tr>
<td>MCS8</td>
<td>6.5/13</td>
<td>27(±1.5)</td>
<td>-94/-92 dBm</td>
</tr>
<tr>
<td>MCS9</td>
<td>13/26</td>
<td>26(±1.5)</td>
<td>-92/-90 dBm</td>
</tr>
<tr>
<td>MCS10</td>
<td>19.5/39</td>
<td>26(±1.5)</td>
<td>-90/-87 dBm</td>
</tr>
<tr>
<td>MCS11</td>
<td>25/52</td>
<td>25(±1.5)</td>
<td>-87/-84 dBm</td>
</tr>
<tr>
<td>MCS12</td>
<td>39/78</td>
<td>24(±1.5)</td>
<td>-84/-81 dBm</td>
</tr>
<tr>
<td>MCS13</td>
<td>52/104</td>
<td>23(±1.5)</td>
<td>-80/-77 dBm</td>
</tr>
<tr>
<td>MCS14</td>
<td>58.5/117</td>
<td>23(±1.5)</td>
<td>-78/-75 dBm</td>
</tr>
<tr>
<td>MCS15</td>
<td>85/130</td>
<td>23(±1.5)</td>
<td>-76/-73 dBm</td>
</tr>
</tbody>
</table>

### MIMO-OFDM / HT20

### MIMO-OFDM / HT40

### Interfaces

- Wireless Interface: 2 x N-type Female Connectors

### Manageability

- Management and Setup: Web-based (Chrome / IE 9.0 or later)
- SNMP agents: MIB II
- Protocol: TCP/IP, IPX/SPX, NetBEUI
- Network Architecture: PTP / PTMP
- Antenna Alignment: WEB GUI Local / Remote Information

### Security

- Data Encryption: WPA-PSK / WPA2-PSK
- Advanced Security: MAC access control / Disable SSID

### Environment

- Operating Temperature: -30~60 °C
- Storage Temperature: -30~70 °C
- Humidity: 95% non-condensing

### Physical

- Weight: 200 g

### Warranty

- 1 YEAR

### Ordering Information

<table>
<thead>
<tr>
<th>HYC-N300cST-33</th>
<th>Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM PTP/PTMP (CSMA/TA) Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYC-N300cCC-33</td>
<td>Outdoor Dual 600 ~ 620 MHz 2W SISO HT-OFDM PTP/PTMP (CSMA/TA) Radio</td>
</tr>
<tr>
<td>HYC-N300cSCP-33</td>
<td>Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM PCE</td>
</tr>
<tr>
<td>HYC-N302cSCR-33gn</td>
<td>Outdoor 600 ~ 620 MHz 2W SISO HT-OFDM CPE Router with 802.11gn WiFi AP</td>
</tr>
<tr>
<td>HYC-OLTR-201cSB-33</td>
<td>Outdoor 4G/LTE backhaul (Hedundancy) &amp; 600 ~ 620 MHz 2W SISO HT-OFDM PTP/PTMP (CSMA/TA) Radio</td>
</tr>
<tr>
<td>HYC-LTR-201cSCP-33</td>
<td>Indoor 600 ~ 620 MHz 2W SISO HT-OFDM 2Watts CPE, SMA-Male connector</td>
</tr>
<tr>
<td>HYC-LTR-201cSCS-33</td>
<td>Indoor 600 ~ 620 MHz 2W SISO HT-OFDM 2Watts CPE Router, SMA-Male connector</td>
</tr>
<tr>
<td>HYC-LTR-201cSCR-33</td>
<td>Indoor 600 ~ 620 MHz 2W SISO HT-OFDM 2Watts CPE Router with 802.11gn WiFi AP, SMA-Male connector</td>
</tr>
</tbody>
</table>