

3DE3625-AR204 - 1218/204 MHz

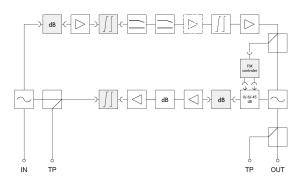
## HOUSE CONNECTION AMPLIFIERS

# 3DE3625-AR204

The 3DE3625-AR204 is a House Connection Amplifier for 1218 MHz downstream and 204 MHz upstream. The amplifier is locally powered and uses jumpers and JXP attenuators for easy alignment. Designed for Network Level 4, the amplifier has low noise figures and is dedicated for high upstream RF levels while simultaneously providing high MER/BER in both directions.

### 3DE3625-AR204 features:

- Wide application range, including network level 4 (NE4)
- Compact and robust housing
- Easy installation and alignment
- Low noise figure in either direction
- High performance for full digital payload applications
- Either manual or remote ingress switching with an option module





#### HOUSE CONNECTION AMPLIFIER / 3DE3625-AR204

| Downstream signal path                      |   | Upstream signal path            |   |  |  |
|---|---|---------------------------------|---|--|--|
| Gain  | 36 dB <sup>(2)</sup>                                      | Gain                            | 25 dB <sup>(2)</sup>                      |  |  |
| Frequency range                             | 2581218 MHz   | Frequency range                 | 5204 MHz                                  |  |  |
| Return loss                                 | ≥ 14 dB <sup>(3)</sup>                                    | Return loss                     | ≥ 14 dB                                   |  |  |
| Input attenuator<br>JXP                     | 020 dB  | Output level                    | 108 dBµV <sup>(6)</sup>                   |  |  |
| Input equalizer<br>JXP                      | 014 dB <sup>(4)</sup>                                     | Input attenuator<br>JXP         | 020 dB                                    |  |  |
| Interstage de-emphasis equalizers<br>Jumper | 0/3 dB & 0/6 dB   | Interstage attenuator<br>Jumper | 0/4 dB                                    |  |  |
| Interstage equalizer<br>Jumper              | 0/7 dB  | <b>Output equalizer</b><br>JXP  | 010 dB                                    |  |  |
| Flatness                                    | ± 0.8 dB  | Ingress switching               | 0/-6/-45 dB <sup>(7)</sup>                |  |  |
| Group delay                                 | 6 ns  | Flatness                        | ± 0.8 dB                                  |  |  |
| Noise figure                                | ≤ 5 dB  | Noise figure                    | ≤ 5 dB                                    |  |  |
| Output level                                | ≥ 100 dBµV <sup>(5)</sup>                                 | Group delay                     | 15 ns                                     |  |  |
| ISOLATION BETWEEN DOWN AND UP               | STREAM  |                                 |   |  |  |
| Down- to upstream                           | C/N∘ ≥120 dBc/Hz  |                                 |   |  |  |
| Up- to downstream                           | C/N∘ ≥120 dBc/Hz  |                                 |   |  |  |
| GENERAL SPECIFICATIONS                      |   |                                 |   |  |  |
| Connectors                                  | Input and output<br>Test points                           | F connector<br>F connector      |   |  |  |
| Test points                                 | 20 dB ± 1.0 dB, directional coupler                       |                                 |   |  |  |
| Impedance                                   | 75 ohms   | Operating temperature           | -20+55 °C                                 |  |  |
| Power supply                                | 230 VAC ±10%  | Class of enclosure              | IP 20                                     |  |  |
| Power consumption                           | ≤ 9 W   | Safety                          | EN/IEC 60728-11                           |  |  |
| Housing                                     | Die-cast Zinc or Aluminum                                 | ЕМС                             | EN 50083-2                                |  |  |
| Dimensions                                  | 173 x 148 x 56 mm (w x h x d) $^{\scriptscriptstyle (8)}$ | ESD                             | 4 kV, EN/IEC 61000-4-2                    |  |  |
| Weight                                      | 1 kg  | Surge                           | 1 kV, EN/IEC 60728-3,<br>EN/IEC 61000-4-5 |  |  |

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(1) Typical values.

(2) Nominal gain in room temperature.

(3) The limiting curve is defined at 204 MHz -1.5 dB / octave. Return loss is always > 10 dB. According to EN 60728-3.

(4) Slope and cable simulator slope value set by JXP plugin according to following conversion table:

| Plugin value (dB) | Slope (dB) (approx.) | Plugin value (dB) | Slope (dB) (approx.) |
|-------------------|----------------------|-------------------|----------------------|
| 2                 | 1.6                  | 12                | 9.2                  |
| 4                 | 3.1                  | 14                | 10.9                 |
| 6                 | 4.7                  | 16                | 12.4                 |
| 8                 | 6.2                  | 18                | 14.0                 |
| 10                | 7.8                  | 20                | 15.5                 |

(5) According to EN 60728-3, with a full digital load when 7 dB second interstage equalizer is enabled.

(6) Typical value, with flat output, using a digital load of 24 x 256QAM. Measured according to EN 60728-3.

(7) Ingress switching requires an optional module. The led color coding according to following table:

| ICS setting | ICS led |  |  |
|-------------|---------|--|--|
| No module   |         |  |  |
| 0 dB        |         |  |  |
| -6 dB       |         |  |  |
| -45 dB      |         |  |  |

(8) Housing size, including F connectors. Reserve an additional approx. 4 cm in width for power supply cable.

| ORDERING INFORMATION                |   |                |  |
|-------------------------------------|---|----------------|--|
| 3DE3625-AR204                       | Equipped with:  |                |  |
|                                     | <ul> <li>75Ω terminator (both test points)</li> <li>0 dB attenuators (in JXP-slots)</li> <li>Fixed power cable, 100 cm with flat Euro plug</li> </ul> | 2 pcs<br>4 pcs |  |
| Optional accessories (not included) |   |                |  |
| C7/C8                               | C7/C8 power cable with Euro plug (only possible at time of ordering)  |                | CXT001 FSK receiver  |
| CXT001                              | FSK controller module   |                |  |
| CXT002                              | On-site service module  |                | The state of the s |
| СХТ003                              | FSK controller module (customer specific)   |                |  |

CXT002 On-site service module



#### **TELESTE CORPORATION** www.teleste.com

Home Amplifier 3DE3625-AR204\_240118

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