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HOME



House Connection Amplifiers

DH4030-R065

# HOUSE CONNECTION AMPLIFIER

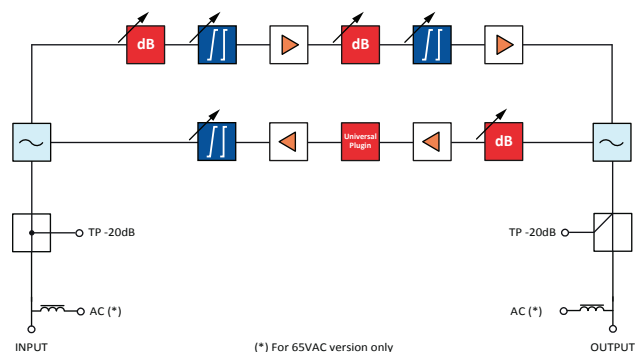
The DH4030-R065 from Teleste is a high performance 5-1006 MHz Amplifier with a 65/85 MHz fixed band split.

Using GaAs-FET technology for the amplifier stages means we have been able to produce high CTB & CSO performance with optimal power capability. All signal controls use Step Attenuators to avoid the need to have a large stock of different attenuator plug-ins.

## DH4030-R065 features


- 65/85 MHz fixed band split
- All adjustments with step attenuators
- GaAs FET and GaAs pHEMT technology in use
- Low US noise figure
- US input attenuator
- Downstream midstage gain and slope control
- Upstream midstage Universal Plug-in
- Improved ESD and surge protection
- Hole for sealing the lid

One of Teleste's superior performance products designed for easy installation and reliability.



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## HOUSE CONNECTION AMPLIFIERS / DH4030-R065

| RF CHARACTERISTICS                                                                                                                                                                                           |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Downstream signal path                                                                                                                                                                                       |                                                                                                                                           | Upstream signal path                                                                                                                                                                                                                                                                          |                                                                                                                      |
| Frequency range                                                                                                                                                                                              | 85...1006 MHz <sup>(1)</sup>                                                                                                              | Frequency range                                                                                                                                                                                                                                                                               | 5...65 MHz <sup>(1)</sup>                                                                                            |
| Return loss                                                                                                                                                                                                  | 18 dB <sup>(2)</sup>                                                                                                                      | Return loss                                                                                                                                                                                                                                                                                   | 18 dB <sup>(13)</sup>                                                                                                |
| Gain                                                                                                                                                                                                         | 40 dB <sup>(3)</sup>                                                                                                                      | Gain                                                                                                                                                                                                                                                                                          | 30 dB <sup>(14)</sup>                                                                                                |
| Input attenuator control range                                                                                                                                                                               | 0...15 dB <sup>(4)</sup>                                                                                                                  | Input attenuator                                                                                                                                                                                                                                                                              | 0...15 dB <sup>(4)</sup>                                                                                             |
| Input equaliser control range                                                                                                                                                                                | 0...15 dB <sup>(4,5)</sup>                                                                                                                | Output equalizer                                                                                                                                                                                                                                                                              | 0...15 dB <sup>(4)</sup>                                                                                             |
| Mid-stage equalizer control range                                                                                                                                                                            | 0...10 dB <sup>(6,7)</sup>                                                                                                                | Midstage universal plug-in                                                                                                                                                                                                                                                                    | <sup>(15)</sup>                                                                                                      |
| Mid-stage attenuator control range                                                                                                                                                                           | 0...10 dB <sup>(6)</sup>                                                                                                                  | Flatness                                                                                                                                                                                                                                                                                      | ± 0.75 dB                                                                                                            |
| Flatness                                                                                                                                                                                                     | ± 0.75 dB <sup>(8)</sup>                                                                                                                  | Test point                                                                                                                                                                                                                                                                                    | - 20 dB <sup>(16)</sup>                                                                                              |
| Group delay                                                                                                                                                                                                  | ≤ 6 ns <sup>(9)</sup>                                                                                                                     | Group delay                                                                                                                                                                                                                                                                                   | ≤ 20 nsec <sup>(17)</sup>                                                                                            |
| Noise figure                                                                                                                                                                                                 | ≤ 7.0 dB <sup>(10)</sup>                                                                                                                  | Noise figure                                                                                                                                                                                                                                                                                  | ≤ 6 dB <sup>(18)</sup>                                                                                               |
| Test point                                                                                                                                                                                                   | 20 dB <sup>(11)</sup>                                                                                                                     | Output level, according to DIN 45004B                                                                                                                                                                                                                                                         | 120 dBμV                                                                                                             |
| CTB 41 channels                                                                                                                                                                                              | 111 dBμV <sup>(12)</sup>                                                                                                                  | Output level, According to "KDG 1 TS 140, volle last" (full load)                                                                                                                                                                                                                             | 120 dBμV                                                                                                             |
| CSO 41 channels                                                                                                                                                                                              | 111 dB <sup>(12)</sup>                                                                                                                    |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| XMOD 41 channels                                                                                                                                                                                             | 109 dBμV <sup>(12)</sup>                                                                                                                  |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| GENERAL                                                                                                                                                                                                      |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| Power consumption                                                                                                                                                                                            | 17 W                                                                                                                                      | Operating temperature                                                                                                                                                                                                                                                                         | -40...+55 °C                                                                                                         |
| Supply voltage                                                                                                                                                                                               | 26...65 VAC/180...255 VAC                                                                                                                 | Class of enclosure                                                                                                                                                                                                                                                                            | IP54                                                                                                                 |
| Max current feedthrough                                                                                                                                                                                      | 5.0 A / port <sup>(19)</sup>                                                                                                              | Safety                                                                                                                                                                                                                                                                                        | EN 60728 -11                                                                                                         |
| Hum modulation                                                                                                                                                                                               | 70 dB @ 3 amps <sup>(19)</sup>                                                                                                            | EMC                                                                                                                                                                                                                                                                                           | EN 60728 -2                                                                                                          |
| Test point connector                                                                                                                                                                                         | F- female                                                                                                                                 | ESD                                                                                                                                                                                                                                                                                           | 4 kV <sup>(20)</sup>                                                                                                 |
| Weight                                                                                                                                                                                                       | < 2 kg                                                                                                                                    | Surge                                                                                                                                                                                                                                                                                         | 4 kV, IEC 60728-3 <sup>(21)</sup>                                                                                    |
| Dimensions                                                                                                                                                                                                   | 210 x 170 x 78 mm (all included)                                                                                                          |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| Input / output connectors                                                                                                                                                                                    | <b>65VAC:</b> PG11 thread and screwing block on RF board. <b>230VAC:</b> F-female according to DIN EN 61169-24, screwed into the housing. |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| <b>NOTES:</b>                                                                                                                                                                                                |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| 1. Fixed band split.                                                                                                                                                                                         |                                                                                                                                           | 12. According to IEC60728-3. Amplifier output was 8 dB cable equivalent sloped. All results are typical values in room temperature. XMOD is measured at the lowest channel. The highest recommended output level for the amplifier is 112.0 dBuV with 41 channels. Valid for both gain modes. |                                                                                                                      |
| 2. The limiting curve is defined at 40 MHz -1.5 dB / octave, min 12db at 1006MHz.                                                                                                                            |                                                                                                                                           | 13. Valid over the band 7...65 MHz with 0dB slope. 16dB min. between 5 and 7 MHz.                                                                                                                                                                                                             |                                                                                                                      |
| 3. This is the minimum gain at 1006 MHz with 8 dB slope.                                                                                                                                                     |                                                                                                                                           | 14. This is the guaranteed minimum gain at 65 MHz with 9 dB output slope.                                                                                                                                                                                                                     |                                                                                                                      |
| 4. Rotary electronic step attenuator with step size of 1 dB is used.                                                                                                                                         |                                                                                                                                           | 15. JDA-series plug-in attenuator, correctors or ingress filters can be used.                                                                                                                                                                                                                 |                                                                                                                      |
| 5. Cable equivalent slope between 85...1006 MHz.                                                                                                                                                             |                                                                                                                                           | 16. -20 dB level is referred to US output, when 0 dB settings are in use.                                                                                                                                                                                                                     |                                                                                                                      |
| 6. Mechanical step attenuators with step size of 2dB are used.                                                                                                                                               |                                                                                                                                           | 17. Max. value for 2 MHz band between 7 and 63 MHz. ≤ 35nsec between 63 and 65MHz and ≤ 55nsec between 5 and 7MHz                                                                                                                                                                             |                                                                                                                      |
| 7. Cable equivalent slope between 85...1006 MHz.                                                                                                                                                             |                                                                                                                                           | 18. Guaranteed value with 9dB output slope.                                                                                                                                                                                                                                                   |                                                                                                                      |
| 8. Guaranteed value after 109 MHz. Flatness is defined with 8 dB mid-stage slope. All other values set to 0dB.                                                                                               |                                                                                                                                           | 19. Only in case of remote powering. At any frequency from 15 to 1006 MHz when a remote current is less than 3.0 A / port. With 5 A current hum modulation value is better than 60 dBc / port.                                                                                                |                                                                                                                      |
| 9. Max. value in 4.43 MHz band after 109 MHz.                                                                                                                                                                |                                                                                                                                           | 20. EN61000-4-2, contact discharge to enclosure and RF-ports.                                                                                                                                                                                                                                 |                                                                                                                      |
| 10. a. Guaranteed value after 109 MHz with flat gain. 0.5dB worse at 85 MHz.<br>b. With 8dB midstage slope, noise figure decreases from 8.2dB to <7.0dB between 109 MHz and 1006 MHz. 0.5dB worse at 85 MHz. |                                                                                                                                           | 21. EN61000-4-5, 1.2 / 50 μs pulse applied to RF-ports.                                                                                                                                                                                                                                       |                                                                                                                      |
| 11. Output TP is from a directional coupler and has a ±1.0 dB tolerance. Input TP is a transformer type and it is having an accuracy of ± 2.0 dB. Both test points are internal.                             |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| ORDERING INFORMATION                                                                                                                                                                                         |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| <b>DH4030-R065 without configuration:</b>                                                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| Type <b>DH4030-R065</b> is an amplifier equipped with 230 VAC power supply with euro plug, 2 F-female connectors and 0dB Universal Plug-in.                                                                  |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
| <b>DH4030-R065-AC</b> is like the previous product, but it uses 65 VAC power supply. Port for local powering is sealed with a PG11 plug.                                                                     |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |                                                                                                                      |
|                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                                                                                                                                                                                                               |  <p>Hole for sealing the lid</p> |

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DH4030-R065\_181207.v10

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