

Overview

The ECAD taps are designed for use in CATV area networks, primary in underground but also for overground installations. Depending on the type, up to 4 branch cables are connected to a CATV signal line. ECAD underground taps are available as 1-, 2-, 3- or 4-way taps with the well-known standard attenuations of 10 dB, 15 dB or 20 dB. The taps feature the new optimized frequency response of 5 to 1200 MHz for up- and downstream. PCB and component connections are in a plastic housing permanently installed. The thermally bonded housing ensures the necessary seal against moisture and a high degree of stability between cable and connector housing. The cable connectors are made of flexible coaxial cable with fixed RF connectors, therefore contact sleeves 4/20 are used. The design of the ECAD tap is based on the currently applicable specification KDG 1 TS 53 and achieves a very high screening factor.

With the transmission range of up to 1200 MHz as well the optimized frequency response, they also meet the demands of Germany's most important cable operators, providing modern and future-proof technology.

Order information

AB 410: PRA170601-10

AB 415: PRA170601-11

AB 420: PRA170601-12

Specifications

1. Transmission loss with tolerance zone in the frequency range 11 to 1200 MHz

| Typ | Input to output | | | | | | | | | | |
|--------|-----------------|-----|------|-----|-----|-----|-----|-----|-----|---------|------|
| | 11 | 47 | 87,5 | 174 | 300 | 470 | 614 | 750 | 862 | 1000 | 1200 |
| AB 410 | 4,8 | 4,8 | 4,8 | 4,8 | 4,8 | 5,0 | 5,0 | 5,3 | 5,3 | 5,8 | 6,3 |
| AB 415 | 2,2 | 2,2 | 2,2 | 2,2 | 2,2 | 2,4 | 2,4 | 2,7 | 2,7 | 3,2 | 3,7 |
| AB 420 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,7 | 1,7 | 2,0 | 2,0 | 2,5 | 3,0 |
| | ±0.3 dB | | | | | | | | | ±0.4 dB | |

2. Tap loss in the frequency range 5 MHz to 1200 MHz

| Tap loss for junction | Tap with rated tap loss in dB | | |
|--------------------------|-------------------------------|------|------|
| | 10 | 15 | 20 |
| 1 st junction | 10,0 | 15,5 | 20,0 |
| 2 nd junction | 11,0 | 16,0 | 20,5 |
| 3 rd junction | 11,5 | 16,0 | 20,5 |
| 4 th junction | 11,5 | 16,5 | 21 |
| | Tolerance: ±1 dB | | |



3. Decoupling outlet/junction and junction/junction

| Frequency range in MHz | Tap types | Decoupling | |
|------------------------|--------------------------------|-----------------|----------------------|
| | | Outlet/junction | Junction/junction |
| 5 – 65 | Entire range | ≥20 dB | ≥30 dB |
| 65 – 450 | Entire range | ≥30 dB | ≥40 dB ¹⁾ |
| 450 – 862 | Entire range | ≥25 dB | ≥36 dB ²⁾ |
| 862 – 1200 | Entire range without 10 dB tap | ≥20 dB | ≥32 dB |
| | 10 dB tap | ≥25 dB | ≥32 dB |

1) For 10 dB taps applies: from 47 MHz 40 dB –1 dB/octave, however ≥37 dB.

2) For 10 dB taps applies: ≥32 dB.

4. Return loss

For all inlets and outlets of the taps and splitters against 75 Ω, real Measuring plane - contact sleeves.

| Frequency range in MHz | Return loss |
|------------------------|---------------------|
| 5 – 15 | ≥10 dB |
| 15 – 47 | ≥15 dB +3 dB/octave |
| 47 – 100 | ≥20 dB |
| 100 – 1200 | ≥20 dB –1 dB/octave |

5. Capacitive isolation of the inner conductor

UN=250 V – on all inlets and outlets.

6. Screening factor

| Frequency range in MHz | SA |
|------------------------|--------|
| 5 – 862 | >90 dB |
| 862 – 1200 | ≥85 dB |

7. Ingress protection IPX8

Waterproof for 24 hours in water at a depth of 2 meter.