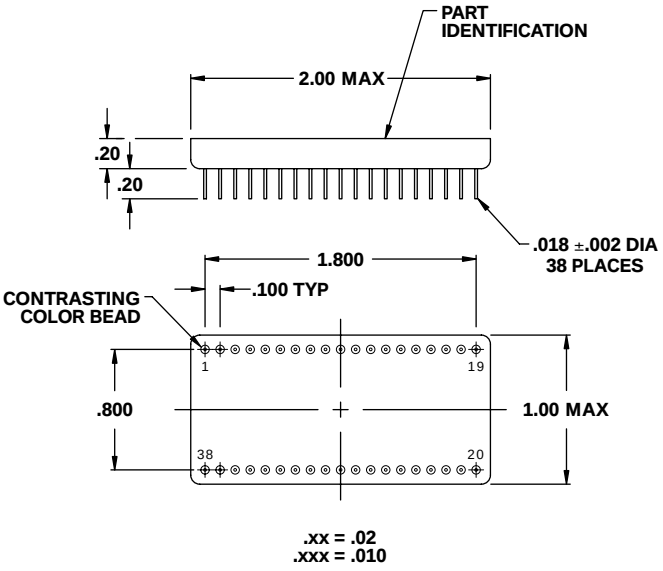
HDI

## FEATURES

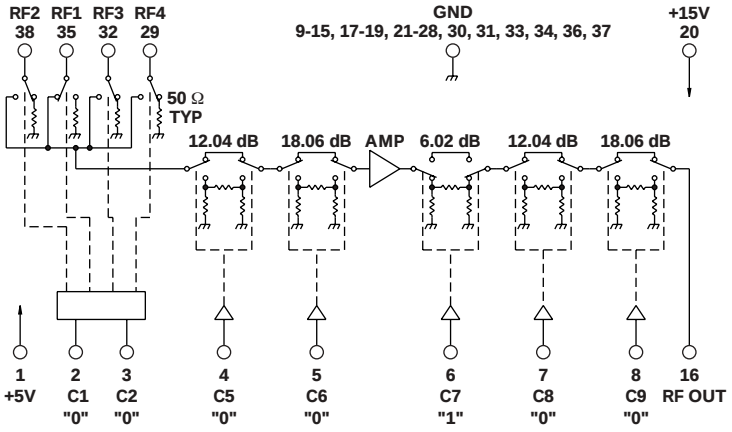
- **9 - 10 MHz**
- **+30 dBm 3rd Order Intercept Point**
- **16.5 dB Gain**
- **+13 dBm 0.1 dBm Compression in Thru State**
- **Integrated GaAs MMIC Switches, Attenuators, Silicon Transistor Amplifier, and TTL Drivers**

# MODEL NO. CHD01940

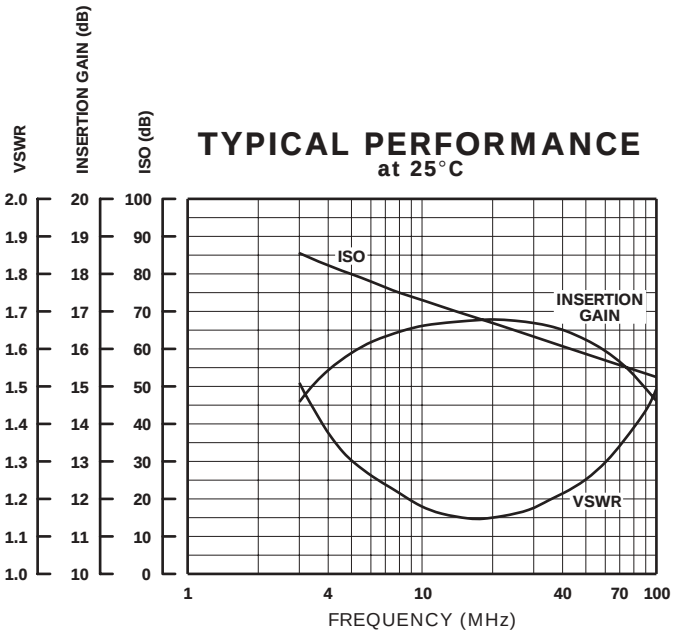
## Switch-Attenuator Amplifier HDMIC




.xx = .02
.xxx = .010




## TYPICAL PERFORMANCE at 25°C




## GUARANTEED PERFORMANCE

| Parameter | | Min | Typ | Max | Units | Conditions |
|---|---|---|---|---|---|---|
| Operating Frequency | | 9 | | 10 | MHz | |
| DC Current | | | 12 | 15 | mA | At +5 VDC Supply |
| | | | 51 | 60 | mA | At +15 VDC Supply |
| Control Type | | | TTL | | | |
| Control Current | *High* | | ±1 | ±20 | μA | VIH = +2.7V |
| | *Low* | | ±1 | ±20 | μA | VIL = +0.5V |
| Insertion Loss (Gain) | | | 16.5 | | dB | |
| Attenuation: | *Steps* | | | | dB | 6.02, 12.04, 12.04, 18.06, 18.06 |
| | *Range* | 0 | | 66.22 | dB | |
| | *Accuracy* | | | | | See Table |
| | *Vs Temp* | | | ±0.2 | dB | Value < 33 dB |
| | | | | ±0.5 | dB | Value > 33 dB |
| | *Vs Phase* | | | ±10 | dB | Between Any Two Attenuation State |
| VSWR | *Thru* | | 1.2/1 | 1.5/1 | | |
| | *Termination* | | 1.5/1 | 2.0/1 | | |
| Impedance | | | 50 | | OHMS | |
| Switching Speed | | | 30 | 100 | nSec | 50% TTL to 10% / 90% RF |
| Transition (Rise/Fall) Time | | | 12 | | nSec | 10% / 90% or 90% / 10% RF |
| Switching (Video) Transients | | | 130 | 350 | mV | Single Change of Input |
| | | | 230 | 600 | mV | Any Combination of Change |
| Intercept Points | *2nd* | | +51 | | dBm | |
| | *3rd* | +26 | +30 | | dBm | C5 - C9 = 0 |
| RF Power | *Operate* | | +18 | +12 | dBm | 0.1 dB Comp. C5 - C9 = "1" |
| | *Operate* | | | -1 | dBm | 1.0 dB Comp. C5 - C9 = "0" Any RF Input |
| | *No Damage* | | | +20 | dBm | |
| Isolation | | 60 | 73 | | dB | |
| Operating Temperature | | 0 | +25 | +70 | °C | TA |