

## Features: (typical values)

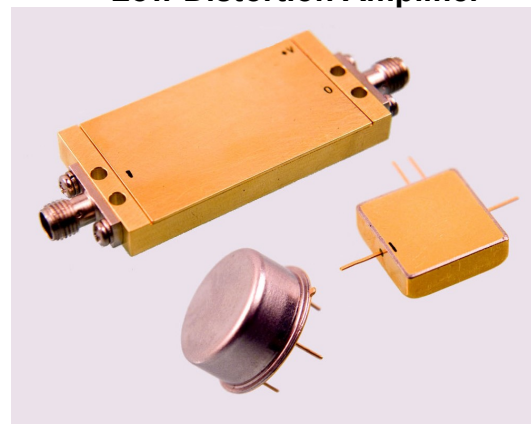
- Output Power ..... +35 dBm.
- Low Noise ..... 3.0 dB.
- High Gain ..... +35 dB.
- No external components required

## Maximum Ratings

Storage Temperature ..... -62°C to +125°C  
DC Voltage ..... +24volts  
RF Input Power ..... +5 dBm.  
Case Temperature ..... +95°C

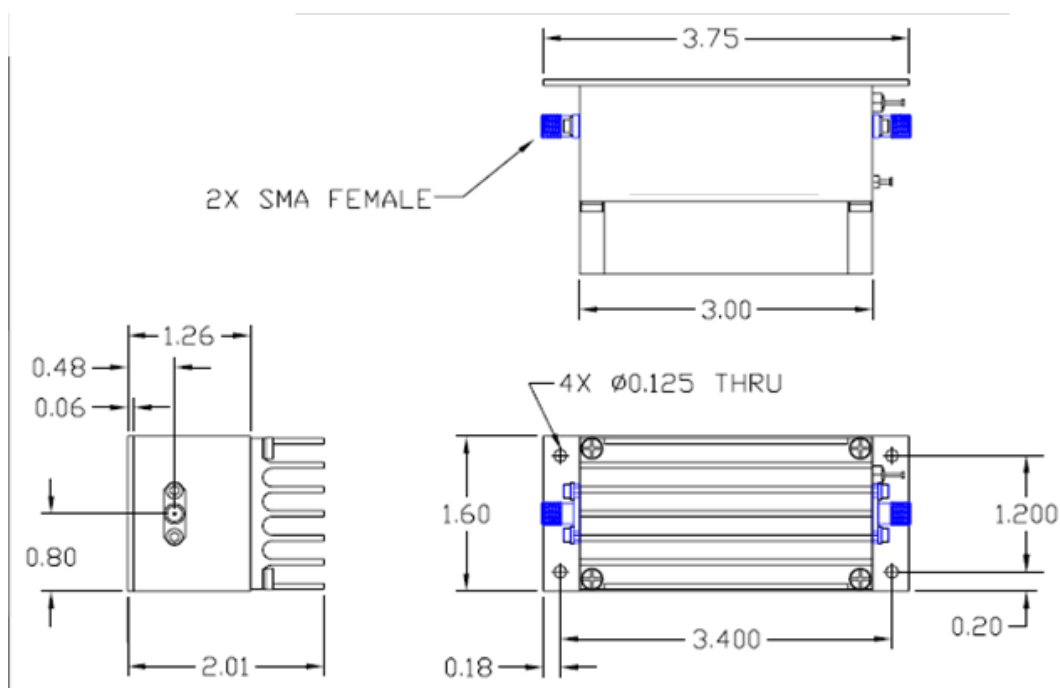
Specifications (Referenced to 50 ohms Impedance)

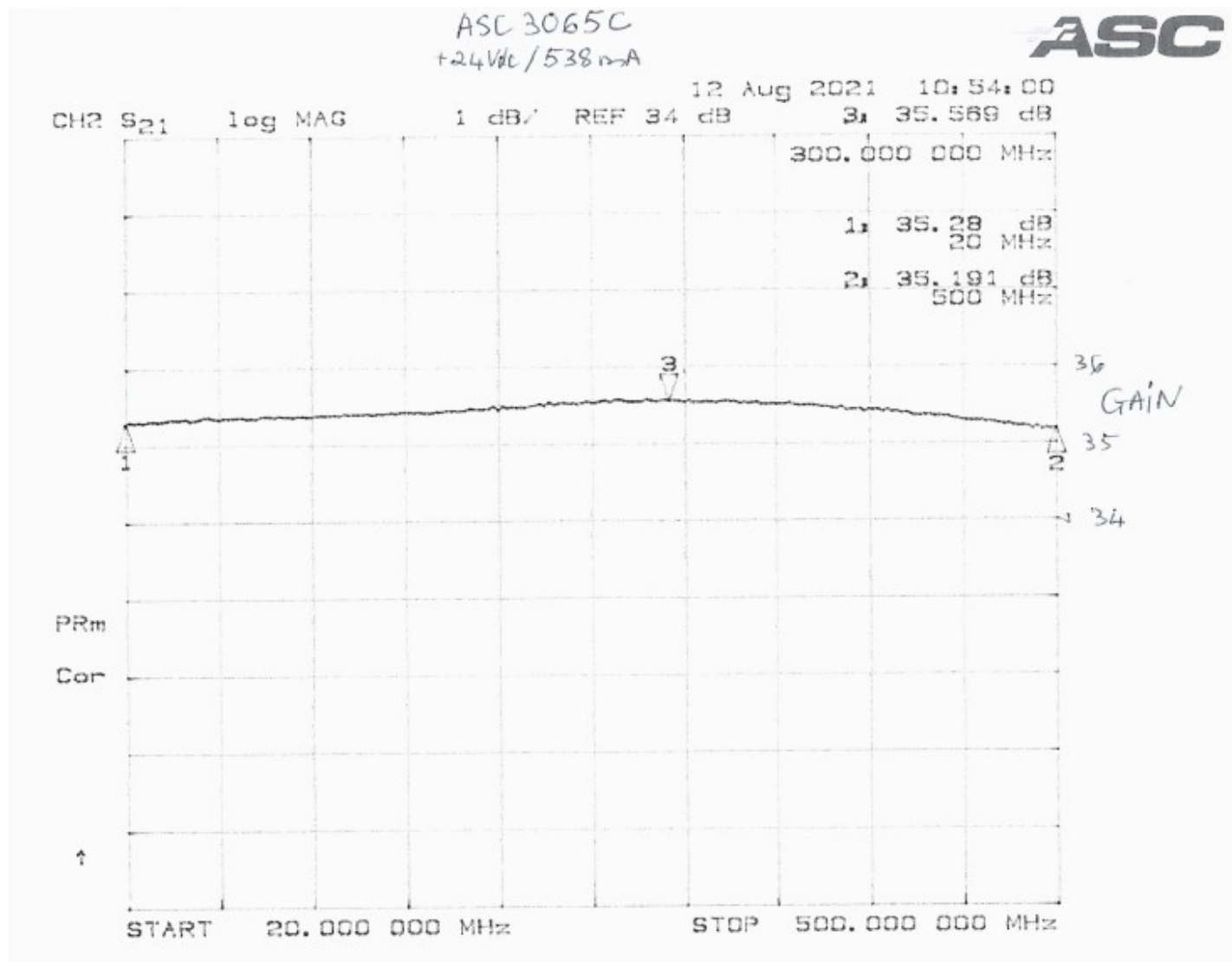
## 20-500 MHz Low Distortion Amplifier



| Parameter                   | Typical Conditions | Min Value | Max Value | Units |
|-----------------------------|--------------------|-----------|-----------|-------|
| Frequency                   |                    | 20        | 500       | MHz.  |
| Gain                        | 35.5               | 34        |           | dB.   |
| Gain Flatness               | ±0.25              |           | ±0.5      | dB.   |
| Pout @ 1dB Comp             | +35.0              | +33.0     |           | dBm.  |
| NF                          | 3.0                |           | 4         | dB.   |
| OIP <sub>3</sub> (two-tone) | 51                 | 49        |           | dBm.  |
| OIP <sub>2</sub> (two-tone) | 80                 | 75        |           | dBm.  |
| VSWR                        | 1.7:1              |           | 2.0 :1    | dB    |
| Supply Required             | +24/550            |           | +24/650   | v/mA. |

Min. and max. values are from -20°C to +70°C





ASC3065C SAMPLE Performance @25C

| Frequency | 20    | 100   | 200   | 300   | 400  | 500   | MHz | Spec        |
|-----------|-------|-------|-------|-------|------|-------|-----|-------------|
| NF        | 2.74  | 2.3   | 2.25  | 2.32  | 2.37 | 2.52  | dB  | 4 dB max    |
| Gain      | 35.28 | 35.29 | 35.36 | 35.56 | 35.4 | 35.19 | dB  | 34 dB min   |
| P1dB      | 34.7  | 34.8  | 34.6  | 35.5  | 35.4 | 35.2  | dBm | 33 dBm min  |
| OIP2      | 89    |       |       | 79    |      | 79    | dBm | 75 dBm Typ. |
| OIP3      | 50    | 52    | 51    | 52    | 52   | 52    | dBm | 49 dBm Typ. |
| Vcc       | 24    | 24    | 24    | 24    | 24   | 24    | Vdc | 24          |
| Ids       | 538   | 538   | 538   | 538   | 538  | 538   | mA  | 650 mA Max  |

FUNCTIONAL BLOCK DIAGRAM

