

Product Preview

CopperGold™ Line Driver

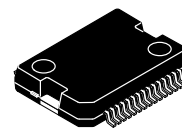
The MC03AX1456 CopperGold Line Driver provides a single chip companion device to interface the MC145650 CopperGold Transceiver to the line transformer.

The MC03AX1456CO is designed to fulfill the central office requirements. The MC03AX1456RT is optimized for use at the remote terminal (i.e., consumer premises). The CopperGold Line Driver provides three differential ports: a transmit and a receive port to interface to the CopperGold Transceiver's transmit and receive ports, respectively; and a bidirectional line port.

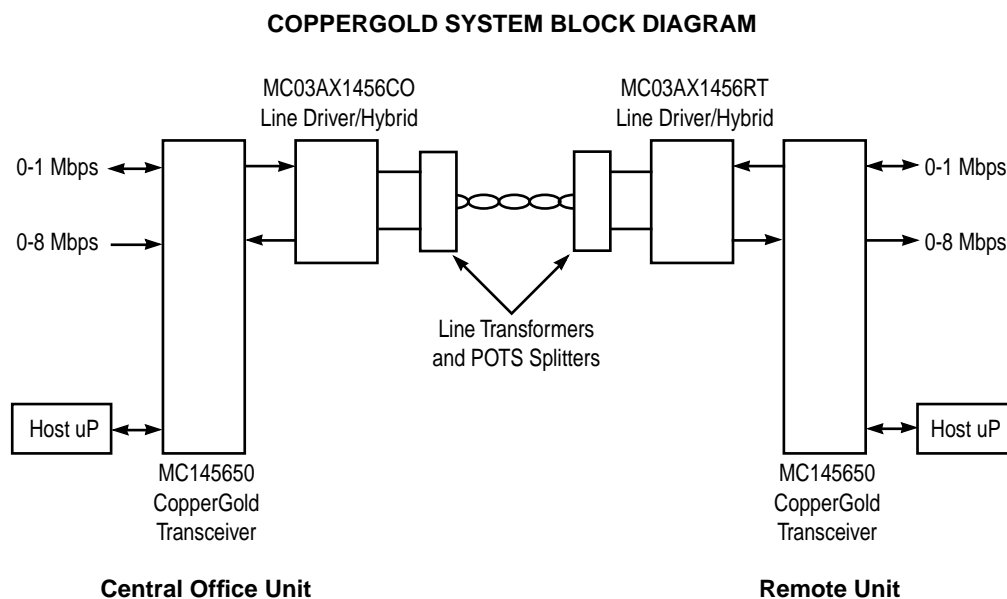
The transmit port incorporates a high-pass filter and a programmable gain stage with three settings. The receive port incorporates a programmable HF boost and a programmable gain stage, each with three settings, as well as a high pass-filter.

- Hybrid Balance for Echo Cancellation
- Defined Termination Impedance to the Line
- Programmable Transmit Gain (3 Settings)
- Programmable Receive Gain (3 Settings)
- Programmable HF Boost (3 Settings)
- Transmit Band for the CO is 26 kHz — 1104 kHz
- Transmit Band for the RT is 26 kHz — 138 kHz
- Frequency Ripple < 0.5 dB (CO and RT)
- Standby Mode for Lower Power Dissipation (CO and RT)
- $\pm 15\text{ V} \pm 10\%$ Supply Voltages
- 30-Pin HSOP Package
- Provides 20 dbm Drive for ATU-C

MC03AX1456CO
MC03AX1456RT



HSOP SUFFIX
PLASTIC PACKAGE
CASE 979A-02



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MAXIMUM RATINGS*

| Symbol | Parameter | Value | Unit |
|------------------|---|---------------|------|
| V _{CC} | Positive Supply Voltage (Referenced to GND) | + 18 | V |
| V _{EE} | Negative Supply Voltage (Referenced to GND) | - 18 | V |
| V _{IN} | Input Voltage (Referenced to GND) | TBD | V |
| V _{OUT} | Output Voltage (Referenced to GND) | TBD | V |
| I _{IN} | Input Current | TBD | mA |
| I _{OUT} | Output Current | TBD | mA |
| T _{STG} | Storage Temperature Range | - 65 to + 150 | °C |

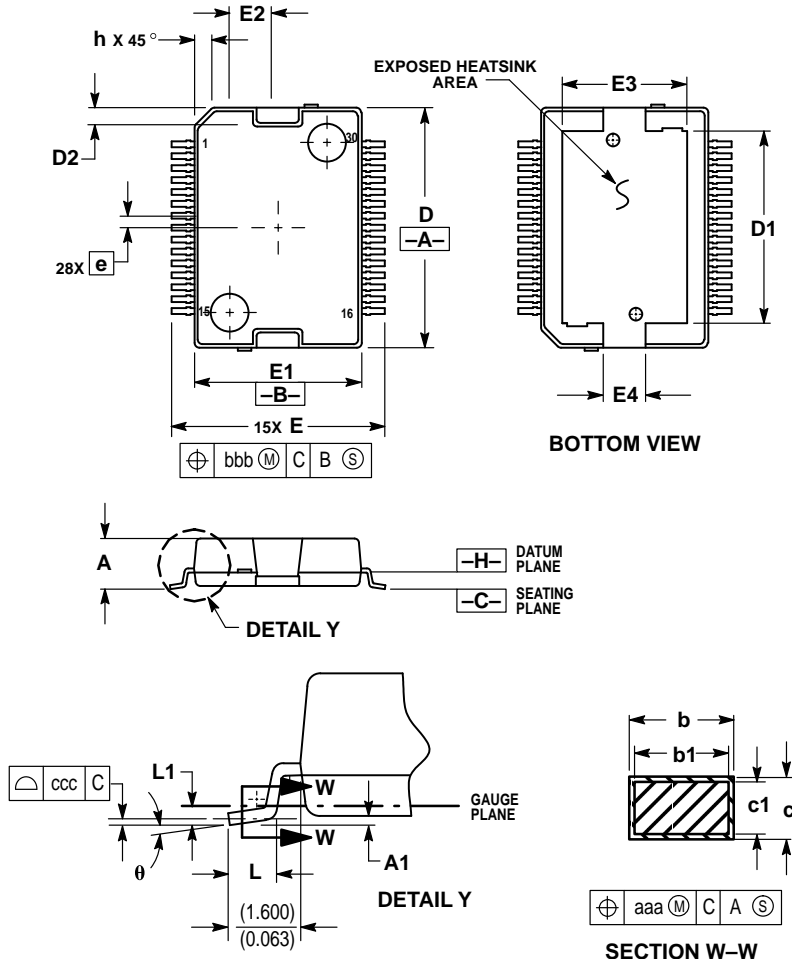
*Maximum Ratings are those values beyond which damage to the device may occur. Functional operation should be restricted to the Recommended Operating Conditions.

RECOMMENDED OPERATING CONDITIONS

| Symbol | Parameter | Min | Typ | Max | Unit |
|------------------|-------------------------|--------|--------|--------|------|
| V _{CC} | Positive Supply Voltage | + 13.5 | + 15.0 | + 16.5 | V |
| V _{Sup} | Negative Supply Voltage | - 13.5 | - 15.0 | - 16.5 | V |
| T _J | Junction Temperature | | | 150 | °C |


PACKAGE DIMENSIONS

HSOP SUFFIX PLASTIC PACKAGE CASE 979A-02



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DATUM PLANE -H- IS LOCATED AT BOTTOM OF LEAD AND IS COINCIDENT WITH THE LEAD WHERE THE LEAD EXITS THE PLASTIC BODY AT THE BOTTOM OF THE PARTING LINE.
4. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE PROTRUSION IS 0.150 (0.006) PER SIDE. DIMENSIONS D AND E1 DO INCLUDE MOLD MISMATCH AND ARE DETERMINED AT DATUM PLANE -H-.
5. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 (0.005) TOTAL IN EXCESS OF THE b DIMENSION AT MAXIMUM MATERIAL CONDITION.
6. DATUMS -A- AND -B- TO BE DETERMINED AT DATUM PLANE -H-.

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MOTOROLA

MC03AX1456PP1/D