AAP661AS-M5A-G-LF-TR (#)

Microphone Pre-amplifiers

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Description :

Electret Condenser Microphone (ECM) Pre-Amplifier w/Programmable HPF The AAP661X ECM Pre Amplifiers were designed for high end audio headset microphone applications. The performance of this Pre-Amplifier is such that it enables design of enhanced end system products, due to its various gain options, ultralow noise and other high performance features. The AAP661X ECM Pre-Amplifier provides a number of performance advantages over prior ECM Pre-Amplifier products. Key features include ultra low input capacitance (0.35pF typical) and quiescent current (250µA typical), with ultra low equivalent input noise (1.9 to 2.5 µV RMS, A-Weighted, with the microphone capacitor short circuited, gain version dependent). Additionally, the Pre-Amplifier sports a programmable high pass filter with operation down to 1.6V. Other key features include THD performance below 0.5% maximum, output impedance of 25Ω typical, with exceptionally high tolerance to RF interference and ESD tolerance (8kV). The AAP661X is offered with two gain options, 16dB and 19dB. Packaging is bumped chip scale SMD configuration, with a size of 930µm x 580µm and an overall thickness of 350µm (including solder bumps). Optimum for 3mm microphones, the die is RoHS compliant, with lead free solder pads of 118µm diameter. Packing styles available are 2" x 2" Waffle Pack or Tape and Reel. Features Selectable gain configurations - 16dB and 19dB Ultra low input capacitance - 0.35pF typical Ultra low equivalent input noise performance - 1.9µVRMS to 2.5µVRMS (Cmic = SC, varies with gain) 8kV ESD tolerance High RFI tolerance, low output impedance (25Ω) Excellent THD performance (<0.5%) Ultra low quiescent current (250µA typical) Chip-scale SMD bumped packaging (930µm x 580µm, 350µm thick)

ROHS,Pb-Free

Division Microsemi Corp. - Analog Mixed Signal Group

Shipping TR12