It is, then, a challenging exercise in analogue electronics design and manufacturing to produce a MEMS interface IC which optimises the performance of the sensor it is paired with.These characteristics, as much as the quality of the sensor itself, determine the quality of the sensor input to the system processor or microcontroller.input impedance o A clean, stable 5–20V low–noise bias voltage independent of the external supply to the IC The performance of the microphone module is strongly affected by the supply and amplification characteristics of the ams interface IC. The module offers a very low figure for total harmonic distortion (below 0.5% at 100dBSPL (Sound Pressure Level) and below 5% at 115dBSPL) and a signalto–noise ratio of 62dB(A) at 94dBSPL.ams' IC uses a Flipped Voltage Follower technique, however, to implement a capacitor–less, multiple–output LDO which offers low power consumption, provides a precisely regulated charge pump supply and occupies a small area on the die.CMOS is normally used for manufacturing digital circuits, but at ams' fab in Graz, Austria the proprietary 0.35um HV CMOS process has been optimised for high–performance analogue, while preserving the low–cost advantages that CMOS confers.Together, the combination of circuit design and manufacturing process produce an IC that interfaces directly to both the MEMS microphone and a baseband processor, with no external components required, and is capable of providing: o