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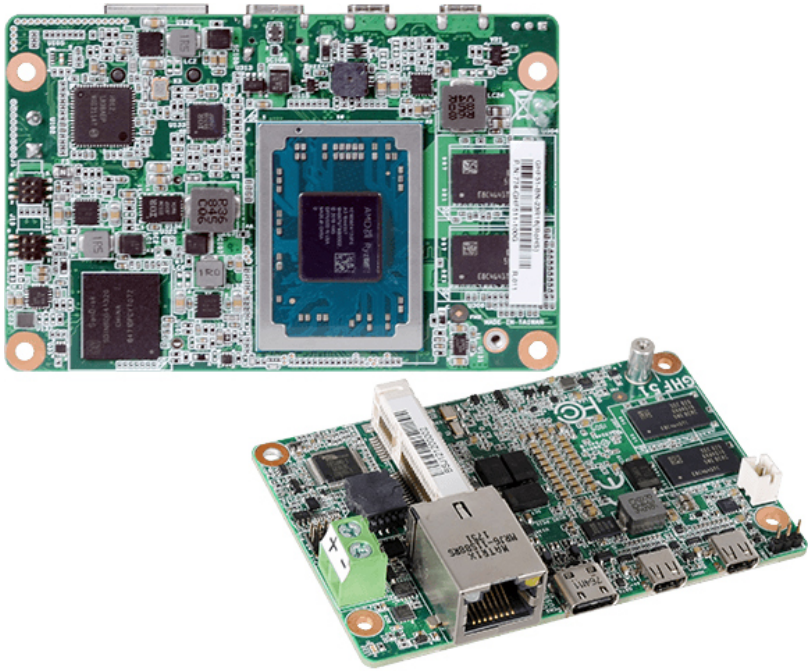
Embedded systems specialist DFI reveals what it claims is the smallest single-board computer (SBC) using an AMD Ryzen Embedded processor-- the GHF51, a highly integrated motherboard the size of a credit card.



Unsurprisingly, the GHF51 brings to mind the Raspberry Pi micro-PC, even if it promises the capabilities of a modern PC. The 1.8-inch platform carries the AMD dual-core Ryzen Embedded R1000-series SoC, together with a Radeon Vega GPU. The GPU carries three compute units (192 stream processor), and offers built-in H.264, H.265 and VP9 decoding. Users can add 2/4/8GB of single-channel DDR4-3200 RAM and 16/32/64GB of eMMC storage to the board. Further features include a mini PCIe slot for add-in cards, an 8-pin DIO header, x2 micro HDMI 1.4 inputs, x1 USB-C port, x1 GbE connector (controlled by an Intel I211AT or I210IT chip) and an fTPM 2.0 chip.

DFI offers the GHF51 in two flavours-- the GHF51-BN-43R16 with the Ryzen Embedded R1606G APU (2.60–3.50GHz, 12W) and the GHF51-BN-43R15 with the Ryzen Embedded R1505G APU (2.40–3.30 GHz, 12W). The two boards carry 4GB DDR4-3200 RAM, 32GB eMMC storage, x2 micro HDMI outputs, x1 GbE port and x1 USB-C port.

The tiny machines support either Windows 10 64-bit IoT Enterprise and Linux. So far the company is still to announce when they will hit the market, and in fact DFI says their status currently remains "Preliminary."

Go DFI GHF51