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## RF design of the waveguide network for the klystron-based CLIC module

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A new RF Module was designed for the Klystron-based CLIC main linac. The new module deploys two X-band klystrons to feed eight CLIC-K accelerating structures giving a beam energy increase of 156 MeV. This module will use a double-height waveguide distribution network which can reduce the RF power loss in the network by about 37%. All the RF components were redesigned to match the double-height requirement, mainly including the 3 dB hybrid, the RF vacuum flange, the bending waveguide, correction cavities and the BOC pulse compressor. A CLIC-K accelerating structure with bended damping waveguides was designed for the new module. The result of RF design work for the klystron based CLIC module is summarized.

### Funding Agency

### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

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