



October 30, 2018

To whom it may concern,

I, Charles Ferriera, authorize the following ABB, Inc. employees to sign FCC submission documents:

- Kady Ward
- Tore Gillbrand
- Paul Gordon

Yours sincerely,

A handwritten signature in black ink, which appears to read 'Charles Ferriera'. The signature is written in a cursive style with a large initial 'C'.

Charles Ferriera
Product Manager
Wireless Communications
ABB