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## March/April 2022

### About the Cover

Barry Chambers, G8AGN, explores the 30 THz band with his simple 30 THz receiver using a Melexis 90614 sensor, and thermally based transmissions. The sensor data, in the form of the sensor ambient temperature and the object temperature, is read using an Arduino Uno with the Adafruit 90614 sensor library. The received infrared signal strength provides an audio output, at a user-chosen constant frequency, when the measured apparent temperature of the distant heat source is greater than the sensor ambient temperature. The transmitter is modulated by switching it on and off as very slow Morse code CW (QRSS). This system has set the UK distance record for 30 THz at 65 m.



# In This Issue

**Perspectives** 

Kazimierz "Kai" Siwiak, KE4PT



30 THz — It's Radio, But Not As You Know It Barry Chambers, G8AGN

**IONOS Simulator: An Open Source Ionospheric Simulator** Rick Muething, KN6KB, Tom Lafleur, KA6IQA, and Tom Whitseside, N5TW

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**Compact Directional Low-Band Receiving Antenna** Arlen Young, K6KZM



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