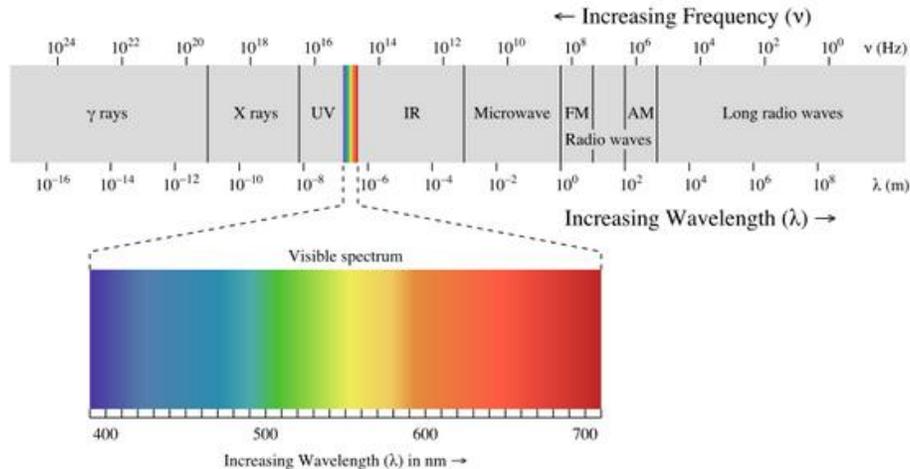


4 Band Fact Sheet:

What is four band imagery?

Four band imagery is multispectral, which means that it is collected from several parts of the electromagnetic spectrum. The spectrum is the entire range of light radiation, from gamma rays to radio waves, including X-rays, microwaves, and visible light. Four band imagery, when delivered to a customer, typically contains red, green, blue, and near infrared bands.



Why was color infrared developed?

CIR film was developed during World War II by Eastman Kodak to assist in detecting camouflage, because it can distinguish a plant cover from other materials. It has since been used for many other applications involving vegetation; the primary purpose being to monitor the health of crops or forests. Trained analysts can sometimes distinguish different plant species from their tone in the image, known as the “spectral signature.”

What is the advantage of CIR?

Color infrared is especially useful because the internal cell structure of healthy plants reflects near infrared wavelengths. Chlorophyll in plants reflects green wavelengths; this is why healthy plants appear green to humans. In addition, the reflected infrared is more reliable in monitoring plant health than the reflected green wavelengths. CIR tends to penetrate atmospheric haze better than natural color, and it provides sharper imagery. This makes CIR especially valuable in areas of the country which are hot and humid in the summer.

