

Principles of Interferential Therapy

True Interferential Stimulators produce a different stimulation frequency through each of their two channels – a “carrier” frequency that is fixed or doesn’t change and an “interference” frequency that does change depending on the therapy protocol. When these two stimulation frequencies cross and “interfere” with each other within the body, the two frequencies subtract resulting in a third frequency, that is the therapeutic frequency “seen” by the targeted injury site. This phenomenon of subtracting two frequencies to create a third frequency is called “beating”.

Duet™ and Quartet™ use a carrier frequency of 4000 Hz (hertz or cycles per second). This is a typical carrier frequency used by several available interferential stimulators. At this frequency the skin impedance, or resistance to the stimulation, is at a minimum, so that the stimulation is allowed to penetrate deeply without significant loss of power or discomfort.

Depending on the Therapy Protocol selected, the interference frequency utilized by Duet and Quartet may vary between 4001 to 4150 Hz. The sophisticated, advanced digital electronic engineering utilized in the construction of Duet and Quartet produces a very precise and repeatable interference frequency. This results in accurate therapeutic frequencies at the targeted injury site.

Reference: Chapter 1, pages 18 - 20: Interferential Therapy, Brenda Savage, MSc, MCSP, DipTP, Faber and Faber, Ltd., 1984, acknowledging contributions from (Chapter 1) Alastair G. McC. Deller, MSc, CEng, MBES, and (Chapter 2) John R. Roberts, BSc, PhD, CEng, MIERE, MBES.