

CLAIMS:

comprising :

1. A transmitter~~/having~~ a carrier frequency node which presents a carrier frequency signal; an
5 intermediate frequency node which presents an intermediate frequency signal; a modulator which modulates data onto said intermediate frequency signal; a mixer which upconverts said modulated, intermediate frequency signal using said carrier frequency signal; a
10 first amplitude limiting stage inserted between said carrier frequency node and said mixer; ~~and~~ a second amplitude limiting stage inserted between said ^{and} intermediate frequency node and said modulator; ~~the transmitter being characterized by:~~
- 15 a filter inserted between ~~said intermediate frequency node and~~ ^{at an input of} said second amplitude limiting stage, ~~said filter~~ ^{and} tuned to said intermediate frequency so as to reduce spurious signals transmitted by said transmitter,
- 20 wherein said carrier frequency node, said intermediate frequency node, said modulator, said mixer, said first and second amplitude limiting stages and said filter are integrated onto a single integrated circuit chip, and ^{spurious signals result from}
- 25 wherein said ~~filter is positioned on said integrated circuit chip so as to reduce intermodulation between harmonics of~~ said intermediate frequency signal and interfering signals ^{emitting} ~~resulting~~ from radiating nodes of said integrated circuit chip.

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2. The transmitter of claim 1, wherein said filter is a bandpass filter.

5 3. The transmitter of claim 2, wherein said bandpass filter is centered about said intermediate frequency.

4. The transmitter of claim 1, wherein said
10 filter is a lowpass filter.

5. The transmitter of claim 4, wherein a cutoff frequency of said lowpass filter is about 30% above said intermediate frequency.

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comprising :

6. Transmitter circuitry ~~including~~ ^{fabricated on said integrated circuit chip and} an integrated circuit chip having a radio frequency input and an intermediate frequency input, and an amplitude limiting stage ^{fabricated on said integrated circuit chip and} disposed downstream of at least one of said radio
20 frequency input and said intermediate frequency input; ^{and}
~~the transmitter circuitry being characterized by:~~

a filter fabricated on said integrated circuit chip which filters one of said radio frequency input and said intermediate frequency input upstream of said
25 amplitude limiting stage, wherein said filter is
^{at an input of said said integrated circuit chip.}
~~positioned on said integrated circuit chip to reduce intermodulation between harmonics of said intermediate frequency input and said radio frequency input.~~

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7. The transmitter of claim 6, wherein said filter is a bandpass filter.

8. The transmitter of claim 7, wherein said s bandpass filter is centered about one of said radio frequency and said intermediate frequency.

9. The transmitter of claim 6, wherein said filter is a lowpass filter.

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10. The transmitter of claim 9, wherein a cutoff frequency of said lowpass filter is about 30% above one of said radio frequency and said intermediate frequency.