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The cross interaction of two quasi-monochromatic waves in quadratic media may be described by an integrable system of first order partial differential equations. The non-locality of the interaction makes this model peculiar as the corresponding evolution equation of the spectral data corresponding to its solutions turns out to be itself nonlinear in contrast with standard integrable models. Both continuum and discrete spectrum solutions are discussed and the one soliton behavior is displayed. (Received September 14, 2010)