Related works

Frequency domain methods

- MMDenseNet [Takahashi et al. 2017]
- MMDenseLSTM [Takahashi et al. 2018]
- OpenUnmix [Stöter et.al 2019]
- D3Net [Takahashi et al. 2021]
- ResUNetDecouple+ [Kong et al. 2021]

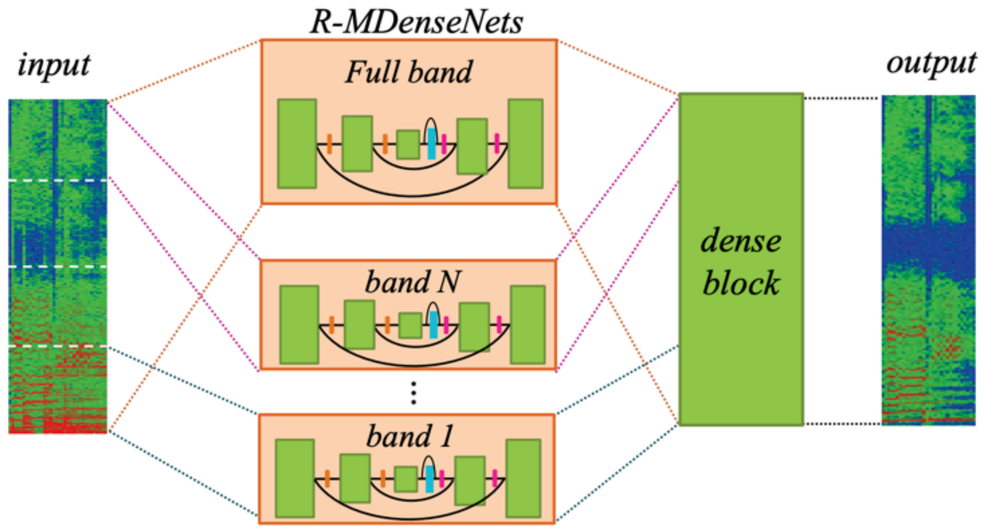

Fig. 3. MMDenseLSTM architecture. Outputs of MDenseLSTM dedicated to different frequency band including the full band are concatenated and the final dense block integrates features from these bands to create the final output.

Motivations

MSS empirical upper bound

- Common assumption:
  - The magnitude of source spectrogram < mixture spectrogram
  - |cIRM| < 1 or |IRM| < 1