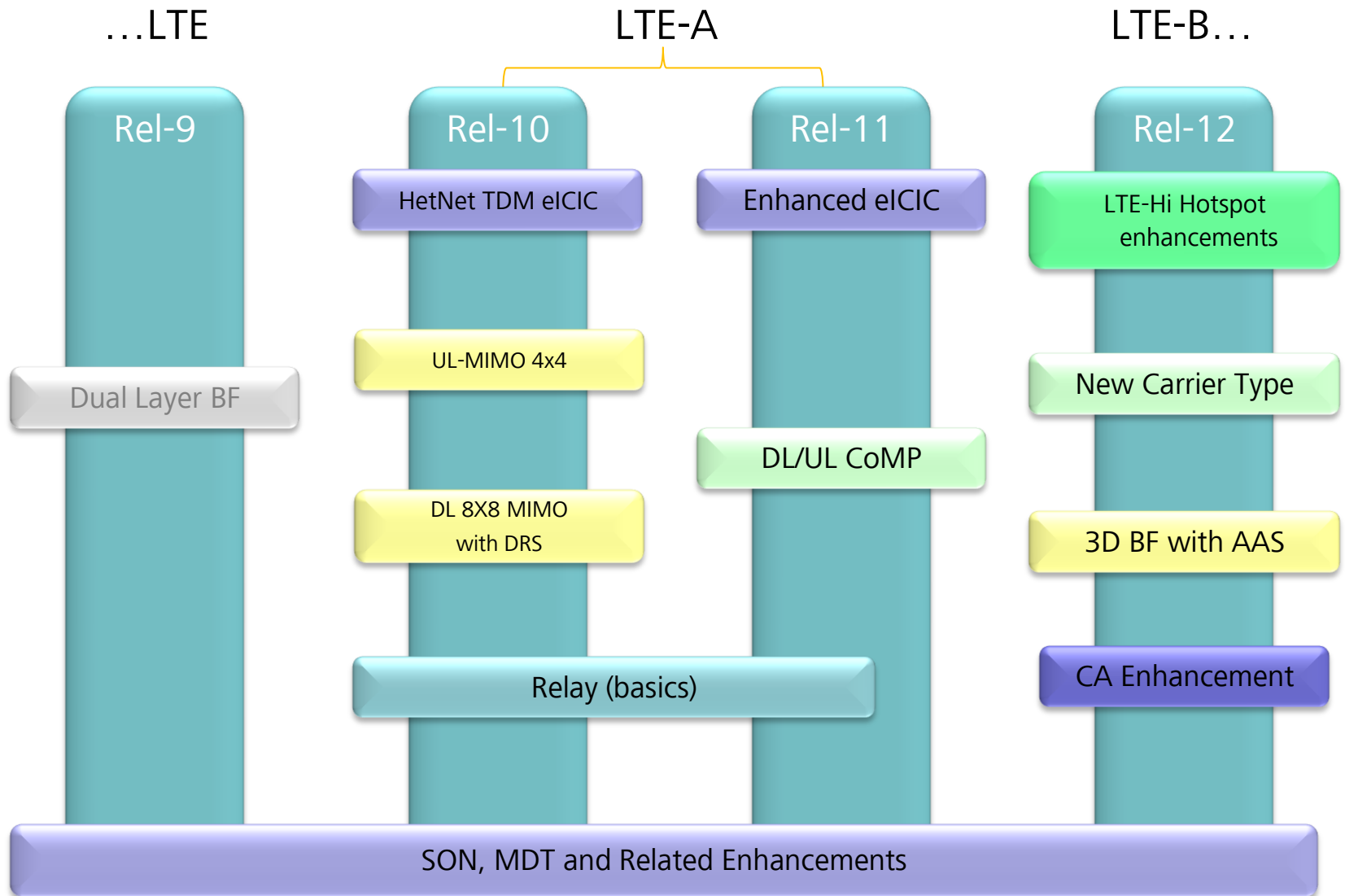


# LTE-A Main Features Recap in 3GPP Releases



# 3GPP LTE/LTE-A UE Categories



UE Category	1	2	3	4	5
DL peak rate (Mbps)	10	50	100	150	300
UL peak rate (Mbps)	5	25	50	50	75
DL Modulation	QPSK/16QAM/64QAM				
UL Modulation	QPSK/16QAM			QPSK/16QAM/64QAM	
Transport layer number	1	2		4	

## 3GPP R8/R9/R10 LTE UE (up to 20MHz):

- Cat 1, 2, 3, 4 (MIMO DL2x2)
- Cat5 (MIMO DL4x4)

# 3GPP LTE/LTE-A UE Categories



UE Category	DL CA Capability	DL Layers max
Category 6	1/20MHz	4
	2/10MHz+10MHz	4
	2/20MHz+20MHz	2
	2/10MHz+20MHz	4 (10MHz) / 2 (20MHz)
Category 7	1/20MHz	4
	2/10MHz+10MHz	4
	2/20MHz+20MHz	2
	2/10MHz+20MHz	4 (10MHz) / 2 (20MHz)
Category 8	2/20MHz+20MHz	8

## 3GPP R10/R11 LTE-A UE (up to 40MHz):

- **Cat 6 (MIMO DL4x4, UL1x2)**
- **Cat 7 (MIMO DL4x4, UL2x4)**
- **Cat 8 (MIMO DL8x8, UL2x8)**

# 3GPP LTE/LTE-A UE Categories



UE Category	UL CA Capability	UL Layers max
Category 6	1/20MHz	1
	2/10MHz+10MHz	1
	1/10MHz	2
Category 7	2/20MHz+20MHz	1
	1/20MHz	2
	2/10MHz+20MHz	2 (10MHz) / 1 (20MHz)
Category 8	2/20MHz+20MHz	4

## 3GPP R10/R11 LTE-A UE (up to 40MHz):

- **Cat 6 (MIMO DL4x4, UL1x2)**
- **Cat 7 (MIMO DL4x4, UL2x4)**
- **Cat 8 (MIMO DL8x8, UL2x8 )**