

6.1 Comparative Threat Analysis Assessment Matrix

Matrix Key: -

1. SCA/B = Threat and/or Countermeasure is applicable to both Contact and Contactless cards and hence are referenced as so.
2. Contact Smart Card – has the prefix SCA and the threat reference to follow – e.g., SCA-T1
3. Contactless Smart Card – has the prefix SCB and the threat reference to follow – e.g., SCB-T1
4. WSN Node – has the prefix WSNN and the threat reference to follow – e.g., WSNN-T1
5. ✓(T) = Total Match; ✓(P) to (T) = Partial to Total Match; ✓(P) = Partial Match; ×(N) = No Match

Contact & Contactless Smart Card Threats			WSN Node Threats		
<u>Smart Card Threat Ref:</u>	Threat Applicable to WSN Nodes	Counter-measure Applicable to WSN Nodes	<u>WSN Node Threat Ref:</u>	Threat Applicable to Smart Cards (state whether contact or contactless)	Counter-measure Applicable to Smart Cards (state whether contact or contactless)
SCA/B-T1	✓(T)	✓(P) to (T)	WSNN-T1	✓(P) SCB	✓(P) SCB
SCA/B-T2	✓(T)	✓(P) to (T)	WSNN -T2	×(N)	×(N)
SCA/B-T3	✓(T)	✓(P) to (T)	WSNN -T3	✓(P) SCA/B	✓(P) SCA/B
SCA/B-T4	✓(T)	✓(P)	WSNN -T4	×(N)	×(N)
SCA/B-T5	✓(T)	✓(T)	WSNN -T5	×(N)	×(N)
SCA/B-T6	✓(T)	✓(P)	WSNN -T6	×(N)	×(N)
SCA/B-T7	✓(T)	✓(P) to (T)	WSNN -T7	✓(P) SCA/B	✓(P) SCA/B
SCA/B-T8	✓(T)	✓(P)	WSNN -T8	✓(T) SCA/B	✓(T) SCA/B
SCA/B-T9	✓(T)	✓(P) to (T)			
SCA/B-T10	✓(P)	✓(P)			
SCB-T11	✓(P)	✓(P)			
SCB-T12	✓(P)	✓(P)			
SCB-T13	✓(P)	✓(P)			
SCB-T14	✓(P)	✓(P)			
<u>Threat Totals</u>		<u>Countermeasure Totals</u>	<u>Threat Totals</u> ✓(T) = 1 ✓(P) to (T) = 0 ✓(P) = 3 ×(N) = 4		
			<u>Countermeasure Totals</u> ✓(T) = 1 ✓(P) to (T) = 0 ✓(P) = 3 ×(N) = 4		
✓(T) = 9		✓(T) = 1			
✓(P) to (T) = 0		✓(P) to (T) = 5			
✓(P) = 5		✓(P) = 8			
×(N) = 0		×(N) = 0			

Figure 12. Comparative Threat Analysis Assessment Matrix