

## Annex D – Comparison of technical and performance differences between the various ADS-B options

Standard	IFR standard GNSS position source + Mode S Transponder	TABS position source + Mode S Transponder +	TABS integrated	Electronic conspicuity
<b>Trade-offs</b>	<b>Best performance/ Highest cost</b>	<b>Good performance/ Higher cost</b>	<b>Medium performance/ Medium cost</b>	<b>Lowest performance/ Lowest cost</b>
<b>Transponder modal interactions</b>	Transponder replies to interrogation.	Transponder replies to interrogation.	Transponder replies to some interrogations (not to ATC radar).	No transponder function.
<b>Transponder downlink format</b>	Transponder transmits DF17	Transponder transmits DF17.	Transmits DF17.	Device transmits DF18 only.
<b>Transmission power</b>	>125W.	>125W.	70W (reduced range performance).	≤ 40W (further reduced range performance).
<b>Visible to ATC radar?</b>	Yes.	Yes.	Unlikely.	No.

Standard	IFR standard GNSS position source + Mode S Transponder	TABS position source + Mode S Transponder +	TABS integrated	Electronic conspicuity
<b>Visible to ATC ADS-B</b>	Yes.	Yes – Situational awareness only if SIL=1. Yes – Full capability if SIL≥2.	Yes – Situational awareness only (SIL=1).	Yes – Situational awareness only (SIL=1).
<b>Visible to ADS-B certified in?</b>	Yes.	Yes, assuming SIL≥1, SDA≥1.	Yes, assuming SIL≥1, SDA≥1.	Yes, assuming SIL≥1, SDA≥1.
<b>Visible to Uncertified ADS-B in products?</b>	Probably.	Probably.	Probably.	Probably.
<b>Visible to drone Sense and Avoid</b>	Yes.	Yes.	Yes.	Yes.
<b>Visible to TCAS</b>	Yes.	Yes.	Yes.	No.
<b>Can the product be installed in aircraft with Mode A/C transponder?</b>	No.	No.	No because TABS replies to interrogations.	Yes.

Standard	IFR standard GNSS position source + Mode S Transponder	TABS position source + Mode S Transponder +	TABS integrated	Electronic conspicuity
<b>Can the product be installed in aircraft with Mode S transponder?</b>	Not applicable.	Not applicable.	Yes, but probably not a logical configuration. If aircraft has a Mode S transponder, fitting a Class B TABS position source would be better than installing a full integrated TABS.	Yes, but only if the Mode S transponder is not outputting ADS-B position.
<b>Purpose</b>	Ultimate performance.	Visibility to ADS-B IN aircraft. Visibility to TCAS. Some visibility to ATC radar and ADS-B.	Visibility to other aircraft. Visibility to TCAS. Visibility to ATC ADS-B coverage.	Visibility to ADS-B IN aircraft. Limited visibility to ATC ADS-B.