



# Digital Switchover Transmitter Details

Wales

Issue 3.0

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# Digital Switchover Transmitter Details: Wales

This document contains details of the transmission characteristics which the television transmitter network will adopt at digital switchover. Information on current digital frequencies is available on the Ofcom website ([www.ofcom.org.uk](http://www.ofcom.org.uk)).

This information is primarily intended to help systems installers make initial preparations for switchover by highlighting those transmitters where frequency allocations and aerial group requirements are likely to change.

A key to column headings is provided in the Glossary.

Please note that although we anticipate that this frequency plan will remain relatively stable in the run-up to switchover, it may prove necessary to make changes to some aspects of the plan with the aim of maximising coverage across the UK. If you would like to be kept informed of any changes, please join our digital transmitter mailing list by sending an email to [broadcast.technical@ofcom.org.uk](mailto:broadcast.technical@ofcom.org.uk) , with the word 'subscribe' as the message subject.

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### Blaenplwyf transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Blaenplwyf</b>	<b>SN569756</b>	<b>27</b>	<b>40kW</b>	<b>24</b>	<b>40kW</b>	<b>21+</b>	<b>40kW</b>	<b>AH</b>	<b>AH</b>	<b>31</b>	<b>27</b>	<b>24</b>	<b>21</b>	<b>56</b>
Aberystwyth	SN587820	58	40W	61	40W	54	40W	C/DV	C/DV	58	64	61	54	
Afon Dyfi	SH844061	22	2W	25	2W	28	2W	AV	AV	22	28	25	32	
Beddgelert	SH582476	62-	2W	59	2W	55	2W	C/DV	C/DV	55	62	59	65	
Beddgelert Link	SH592490	27	2W	24	2W	21+	2W	AV	AV	31	27	24	21	
Bow Street	SN624845	44	17.2W	41+	17.2W	47	17.2W	BV	BV	51	44	41	47	
Corris	SH759067	45	2W	49	2W	42	2W	BV	BV	39	45	49	42	
Cwrtnwydd	SN486476	44	2W	41+	2W	47	2W	BV	BV	51	44	41	47	
Dolybont	SN628889	57	20W	60	20W	53	20W	C/DV	C/DV	58	64	61	54	
Machynlleth	SH723003	57	4W	60	4W	53	4W	C/DV	C/DV	57	63	60	53	
Penrhyn-Coch	SN633844	62-	14.4W	59	14.4W	55	14.4W	C/DV	C/DV	55	62	59	65	
Trefilan	SN562554	57	17.2W	60	17.2W	53	17.2W	C/DV	C/DV	57	63	60	53	
Ynys-Pennal	SN688983	44	4W	41+	4W	47	4W	BV	BV	51	44	41	47	

### Blaenplwyf transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Blaenplwyf</b>	<b>SN569756</b>	<b>25</b>	<b>10kW</b>	<b>22+</b>	<b>10kW</b>	<b>28</b>	<b>10kW</b>	<b>AH</b>	<b>AH</b>	<b>31</b>	<b>27</b>	<b>24</b>	<b>21</b>	<b>56</b>

## Carmel transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Carmel</b>	<b>SN576153</b>	<b>60</b>	<b>20kW</b>	<b>53</b>	<b>20kW</b>	<b>57</b>	<b>20kW</b>	<b>C/DH</b>	<b>C/DH</b>	<b>57</b>	<b>63</b>	<b>60</b>	<b>53</b>	
Abercraf	SN851123	25	25W	28	25W	22	25W	AV	AV	22	28	25	32	
Brechfa	SN504289	27	3.6W	24	3.6W	21+	3.6W	AV	AV	21	27	31	24	
Bronwydd Arms	SN414237	27	2W	24	2W	21+	2W	AV	AV	21	27	31	24	
Builth Wells	SO036528	25	5.2W	22	5.2W	28	5.2W	AV	AV	22	28	25	32	
Cilycwm	SN777406	27	2W	24	2W	21+	2W	AV	AV	21	27	31	24	
Cwmtwrch	SN760106	24	3.2W	21+	3.2W	27	3.2W	AV	AV	21	27	24	31	
Cwm-gors	SN705123	24	5.2W	27	5.2W	21+	5.2W	AV	AV	21	27	24	31	
Erwood	SO089428	60	2W	53	2W	57	2W	C/DV	C/DV	57	63	60	53	
Greenhill	SM924015	24	30W	27	30W	21+	30W	AV	AV	21	27	24	31	
Llandrindod Wells	SO018635	49	400W	42	400W	45	400W	BV	BV	39	45	49	42	
Llanelli	SN510023	49	20W	45	20W	42	20W	BV	E/WV	39	45	49	67	
Llansawel	SN618368	28	2W	25	2W	22	2W	AV	AV	22	28	32	25	
Llanwrtyd Wells	SN899454	24	2W	21+	2W	27	2W	AV	AV	21	27	24	31	
Penderyn	SN956087	49	2.6W	42	2.6W	45	2.6W	BV	BV	39	45	49	42	
Rhayader	SN985702	23	20W	29	20W	26	20W	AV	AV	33	26	23	29	
Talley	SN639332	49	2W	42	2W	45	2W	BV	BV	39	45	49	42	
Tenby	SS109994	56-	20W	48	20W	52-	20W	C/DV	BV	39	45	49	42	
Ystalyfera	SN779078	49	1W	42	1W	45	1W	BV	BV	39	45	49	42	

### Carmel transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Carmel</b>	<b>SN576153</b>	<b>54</b>	<b>10kW</b>	<b>58</b>	<b>10kW</b>	<b>61</b>	<b>10kW</b>	<b>C/DH</b>	<b>C/DH</b>	<b>57</b>	<b>63</b>	<b>60</b>	<b>53</b>	

### Kilvey Hill transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Kilvey Hill</b>	<b>SS671940</b>	<b>23</b>	<b>2kW</b>	<b>26</b>	<b>2kW</b>	<b>29</b>	<b>2kW</b>	<b>AV</b>	<b>AV</b>	<b>33</b>	<b>26</b>	<b>23</b>	<b>29</b>	<b>35</b>
Alltwen	SN716039	43	2W	46	2W	50	2W	BV	BV	40	46	43	50	
Briton Ferry	SS747956	43	4W	46	4W	50	4W	BV	BV	46	40	43	50	
Burry Port	SN449019	61	2W	58	2W	54	2W	C/DV	C/DV	58	64	61	54	
Cilfrew	SS775986	49	3W	45	3W	42	3W	BV	BV	39	45	49	52	
Craig-Cefn-Parc	SN682020	43	2W	46	2W	50	2W	BV	BV	46	40	43	50	
Efail-fach	SS786958	49	2W	45	2W	52	2W	BV	BV	39	45	49	52	
Mynydd Emroch	SS775901	43	18W	46	18W	50	18W	BV	BV	40	46	43	50	
Neath Abbey HP	SS731980	52	10W	48	10W	56	10W	C/DH	E/WH	66	48	42	56	
Neath Abbey VP	SS731980	52	10W	48	10W	56	10W	C/DV	E/WV	66	48	42	56	
Pontardawe	SN732037	61	25W	58	25W	54	25W	C/DV	C/DV	58	64	61	68	

### Kilvey Hill transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Kilvey Hill</b>	<b>SS671940</b>	<b>25</b>	<b>2kW</b>	<b>22</b>	<b>2kW</b>	<b>28</b>	<b>2kW</b>	<b>AV</b>	<b>AV</b>	<b>33</b>	<b>26</b>	<b>23</b>	<b>29</b>	<b>35</b>

### Llandona transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Llandona</b>	<b>SH582810</b>	<b>57</b>	<b>20kW</b>	<b>60</b>	<b>20kW</b>	<b>53</b>	<b>20kW</b>	<b>E/WH</b>	<b>C/DH</b>	<b>57</b>	<b>63</b>	<b>60</b>	<b>53</b>	
Amlwch	SH436920	22	7W	25	7W	28	7W	AV	AV	22	28	25	32	
Arfon	SH476493	41+	2kW	44	2kW	47	2kW	BV	BV	51	44	41	47	
Bethesda	SH613663	57	5W	60	5W	53	5W	C/DV	C/DV	57	63	60	53	
Bethesda North	SH627672	28	2W	25	2W	22	2W	AV	AV	28	22	25	32	
Betws-y-Coed	SH824582	27	100W	24	100W	21+	100W	AV	AV	21	27	24	31	
Caergybi	SH247817	21+	2W	24	2W	27	2W	AV	AV	21	27	24	31	
Caernarfon	SH486629	24	5W	27	5W	21+	5W	AV	AV	21	27	24	31	
Cemaes	SH373926	45	5.6W	49	5.6W	42	5.6W	BV	BV	40	46	43	50	
Coed Derw	SH794572	43	4W	50	4W	46	4W	BV	BV	51	44	41	47	
Conway	SH781765	47	400W	41+	400W	44	400W	BV	BV	40	46	43	50	
Deiniolen	SH576621	22	8W	25	8W	28	8W	AV	AV	22	28	25	32	
Dolwyddelan	SH740528	44	2.2W	41+	2.2W	47	2.2W	BV	BV	51	44	41	47	
Ffestiniog	SH709391	25	240W	22	240W	28	240W	AV	AV	22	28	25	32	

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Gronant	SJ088833	26	8W	29	8W	23	8W	AV	AV	26	33	29	23	
Llandecwyn	SH644371	61	60W	58	60W	54	60W	C/DV	C/DV	58	64	61	54	
Llanengan	SH283278	61	10W	58	10W	54	10W	C/DH	C/DH	58	64	61	54	
Maentwrog	SH656407	43	3.2W	50	3.2W	46	3.2W	BV	BV	40	46	43	50	
Mochdre	SH829786	26	2W	23	2W	29	2W	AV	AV	33	26	23	29	
Morfa Nefyn	SH285358	25	14W	28	14W	22	14W	AV	AV	22	28	25	32	
Prestatyn	SJ073822	22	2W	25	2W	28	2W	AV	AV	22	28	25	32	
Trefor	SH376455	45	10W	49	10W	42	10W	BV	BV	39	45	49	42	
Wauanfawr	SH529600	25	5.2W	28	5.2W	22	5.2W	AV	AV	22	28	25	32	

### Llanddona transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Llanddona</b>	<b>SH582810</b>	<b>43</b>	<b>10kW</b>	<b>46</b>	<b>10kW</b>	<b>50</b>	<b>10kW</b>	<b>E/WH</b>	<b>C/DH</b>	<b>57</b>	<b>63</b>	<b>60</b>	<b>53</b>	

## Long Mountain transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Long Mountain<sup>a</sup></b>	<b>SJ265057</b>	<b>60</b>	<b>400W</b>	<b>53</b>	<b>400W</b>	<b>57</b>	<b>400W</b>	<b>C/DV</b>	<b>C/DV</b>	<b>58</b>	<b>64</b>	<b>61</b>	<b>54</b>	
Broneirion	SO018884	29	2W	23	2W	26	2W	AV	AV	33	26	29	23	
Carno	SN950961	24	2W	27	2W	21+	2W	AV	AV	21	27	24	31	
Castle Caereinion	SJ177058	46	2W	43	2W	50	2W	BV	BV	40	46	43	50	
Kerry	SO150908	27	3.4W	24	3.4W	21+	3.4W	AV	AV	21	27	24	31	
Llanbrynmair	SH892046	25	4W	28	4W	22	4W	AV	AV	22	28	25	32	
Llandinam	SO050877	41+	50W	47	50W	44	50W	BV	BV	44	51	41	47	
Llanfyllin	SJ150180	28	25W	25	25W	22	25W	AV	AV	22	28	25	32	
Llangadfan	SJ020091	28	2W	25	2W	22	2W	AV	AV	22	28	25	32	
Llangurig	SN900794	23	2W	29	2W	26	2W	AV	AV	33	26	23	29	
Llangynog	SJ051259	62-	2W	55	2W	59	2W	C/DV	C/DV	55	62	65	59	
Llanidloes	SN947843	25	2W	28	2W	22	2W	AV	AV	22	28	25	32	
Llanrhaeadr-ym-Mochnant	SJ174260	45	15.4W	49	15.4W	42	15.4W	BV	BV	39	45	49	42	
Moel-y-Sant	SJ151105	27	23W	24	23W	21+	23W	AV	AV	34	27	24	31	
Tregynon	SO110963	28	7W	25	7W	22	7W	AV	AV	22	28	25	32	

<sup>a</sup> D3&4 at Long Mountain is expected to operate temporarily on channel 52, and BBC B on channel 56, until 2011.

## Moel-y-Parc transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Moel-y-Parc</b>	<b>SJ123701</b>	<b>45</b>	<b>20kW</b>	<b>49+</b>	<b>20kW</b>	<b>42</b>	<b>20kW</b>	<b>BH</b>	<b>BH</b>	<b>52</b>	<b>45</b>	<b>49</b>	<b>42</b>	
Bala	SH968375	26	40W	23	40W	29	40W	AV	AV	33	26	23	29	
Betws-yn-Rhos	SH899756	27	2.5W	24	2.5W	21+	2.5W	AV	AV	21	27	24	31	
Cefn-mawr <sup>b</sup>	SJ267409	57	50W <sup>b</sup>	53	50W <sup>b</sup>	60	50W	C/DV	BV C/DH	51 58	44 64	41 61	47 54	
Cerrigydrudion	SH933482	26	6.4W	23	6.4W	29	6.4W	AV	AV	33	26	23	29	
Corwen	SJ080431	28	40W	25	40W	22	40W	AV	AV	22	28	25	32	
Cyffylliog	SJ063580	28	2W	25	2W	22	2W	AV	AV	22	28	25	32	
Glyn Ceiriog	SJ203386	58	2W	61	2W	54	2W	C/DV	C/DV	58	64	61	54	
Glyndyfrdwy	SJ158429	62-	2W	59	2W	55	2W	C/DV	C/DV	55	62	59	65	
Llanarmon-yn-iâl	SJ194582	27	2W	24	2W	21+	2W	AV	AV	21	27	24	31	
Llandderfel	SH990358	62-	2W	55	2W	59	2W	C/DV	C/DV	55	62	65	59	
Llanddulas	SH910784	26	3W	23	3W	29	3W	AH	AH	33	26	23	29	
Llangernyw	SH881660	28	2W	22	2W	25	2W	AV	AV	22	28	32	25	
Llangollen	SJ204421	58	2W	61	2W	54	2W	C/DV	C/DV	57	63	60	53	
Llanuwchllyn	SH873326	46	6W	43	6W	50	6W	BV	BV	40	46	43	50	
Pen-y-Banc	SJ077497	27	2W	24	2W	21+	2W	AV	AV	21	27	24	31	
Penmaen Rhos	SH877779	22	28W	25	28W	28	28W	AV	AV	22	28	25	32	

<sup>b</sup> BBC A and D3&4 at Cefn-Mawr are expected to operate at 25W until 2011

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Pontfadog	SJ219356	28	2W	25	2W	22	2W	AV	AV	22	28	25	32	
Pwll-Glas	SJ119541	26	2W	23	2W	29	2W	AV	AV	33	26	23	29	
Storeton Wales <sup>c</sup>	SJ314841	57	500W	53	500W	60	500W	C/DH	-	-	-	-	-	
Wrexham Rhos	SJ300537	28	80W	22	80W	25	80W	AV	K/WV	39	28	32	25	

### Moel-y-Parc transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Moel-y-Parc<sup>d</sup></b>	<b>SJ123701</b>	<b>51-</b>	<b>10kW</b>	<b>52+</b>	<b>10kW</b>	<b>48-</b>	<b>10kW</b>	<b>BH</b>	<b>BH</b>	<b>52</b>	<b>45</b>	<b>49</b>	<b>42</b>	

### Preseli transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Preseli</b>	<b>SN172306</b>	<b>43+</b>	<b>20kW</b>	<b>46+</b>	<b>20kW</b>	<b>50+</b>	<b>20kW</b>	<b>BH</b>	<b>BH</b>	<b>46</b>	<b>40</b>	<b>43</b>	<b>50</b>	<b>37</b>
Abergwynfi	SS886971	24	2W	21+	2W	27	2W	AV	AV	21	27	24	31	
Broad Haven	SM861130	61	8W	58	8W	54	8W	C/DV	C/DV	58	64	61	54	

<sup>c</sup> Storeton Wales will carry Welsh regional services, and is intended to replace the existing 2-channel analogue relays at Flint, Bagillt and Holywell

<sup>d</sup> SDN and Arqiva A at Moel-y-Parc are expected to temporarily operate at 2.5kW until 2011

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Bronnant	SN664664	23	3.2W	29	3.2W	26	3.2W	AV	AV	34	26	23	30	
Croeserw HP	SS857952	61	2W	58	2W	54	2W	C/DH	C/DH	58	64	61	54	
Croeserw VP	SS857952	61	24W	58	24W	54	24W	C/DV	C/DV	58	64	61	54	
Cynwyl Elfed	SN375273	25	2W	22	2W	28	2W	AV	AV	22	28	25	32	
Dolgellau	SH727185	59	4W	55	4W	62-	4W	C/DV	C/DV	55	62	59	65	
Duffryn	SS834956	25	2W	22	2W	28	2W	AV	AV	22	28	25	32	
Ferryside <sup>°</sup>	SN371104	21+	25W	30-	5W	24	25W	AV	AV		31			
Fishguard	SM944391	61	25W	58	25W	54	25W	C/DV	C/DV	58	64	61	54	
Glyncorrwg	SS871989	49	2W	45	2W	42	2W	BV	BV	39	45	49	42	
Haverfordwest	SN028261	56	100W	52	100W	48	100W	C/DH	C/DH	52	66	56	68	
Llandyfriog	SN348412	25	22W	22	22W	28	22W	AV	AV	22	28	25	32	35
Llandysul	SN425409	60	15.2W	57	15.2W	53	15.2W	C/DV	C/DV	57	63	60	53	
Llangrannog	SN322538	25	8W	22	8W	28	8W	AV	AV	22	28	25	32	
Llangybi	SN614524	25	2.6W	22	2.6W	28	2.6W	AV	AV	22	28	25	32	
Llwyn Onn	SH625174	25	7W	22	7W	28	7W	AV	AV	22	28	25	32	
Mynydd Pencarreg	SN577430	61	24W	58	24W	54	24W	C/DV	C/DV	58	64	61	54	
Newport Bay	SN066414	47+	10W	51+	10W	44+	10W	BV	C/DV	57	63	60	67	
Pembroke Dock	SM967028	61	5W	58	5W	54	5W	C/DV	C/DV	58	64	61	54	
Pencader	SN451370	23	2W	26	2W	29	2W	AV	AV	33	26	23	29	

<sup>°</sup> Ferryside has already switched to digital at 5W ERP. The PSB multiplexes will increase in power to 25W ERP at the time of the Preseli transmitter group's switchover.

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Rheola	SN841061	59	20W	55	20W	62-	20W	C/DV	C/DV	55	62	59	65	
St Davids	SM751254	23	16W	26	16W	29	16W	AV	AV	33	26	23	29	
St Dogmaels	SN165452	23	3W	26	3W	29	3W	AV	AV	33	26	23	29	
Trefin	SM848310	25	100W	22	100W	28	100W	AV	AV	22	28	25	32	
Tregaron	SN686605	55	3W	62-	3W	59	3W	C/DV	C/DV	62	68	56	66	
Ystumtuen	SN740795	49-	10W	45-	10W	42-	10W	BV	BV	39	45	49	42	

### Preseli transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Preseli<sup>f</sup></b>	<b>SN172306</b>	<b>42-</b>	<b>10kW</b>	<b>45-</b>	<b>10kW</b>	<b>49-</b>	<b>10kW</b>	<b>BH</b>	<b>BH</b>	<b>46</b>	<b>40</b>	<b>43</b>	<b>50</b>	<b>37</b>
Ferryside <sup>g</sup>	SN371104	27	5W					AV	AV		27			

### Wenvoe transmitter group - Public Service Broadcaster (PSB) Multiplexes

Site Name	NGR	BBC A	D3&4	BBC B	DSO	Pre-DSO	Analogue Frequencies
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<sup>f</sup> SDN, Arqiva A, and Arqiva B at Preseli are expected to operate at 2kW ERP until 2010

<sup>g</sup> Ferryside has already switched to digital at 5W ERP. The PSB multiplexes will increase in power to 25W ERP at the time of the Preseli transmitter group's switchover.

		Channel	ERP	Channel	ERP	Channel	ERP	Aerial Group	Aerial Group	BBC1	BBC2	ITV1	S4C	C5
<b>Wenvoe</b>	<b>ST110741</b>	<b>41+</b>	<b>100kW</b>	<b>44</b>	<b>100kW</b>	<b>47</b>	<b>100kW</b>	<b>BH</b>	<b>BH</b>	<b>44</b>	<b>51</b>	<b>41</b>	<b>47</b>	
Aberbeeg	SO215029	43	2W	50	2W	46	2W	BV	BV	40	46	43	50	
Abercynon	ST093952	58	2W	54	2W	61	2W	C/DH	C/DH	64	66	58	54	
Aberdare	SO034012	24-	100W	21+	100W	27-	100W	AV	AV	21	27	24	31	
Abergavenny	SO244126	49	200W	42	200W	45	200W	BV	BV	39	45	49	42	
Abertillery	SO224023	25	56W	22	56W	28	56W	AV	AV	22	28	25	32	
Abertridwr	ST123885	60	10W	57	10W	53	10W	C/DV	C/DV	57	63	60	53	
Bargoed	SO145010	24	60W	21+	60W	27	60W	AV	AV	21	27	24	31	
Bedlinog	SO102005	24	2W	21+	2W	27	2W	AV	AV	21	27	24	31	
Blackmill	SS930866	25	2W	22	2W	28	2W	AV	AV	22	28	25	32	
Blaenau Gwent	SO215049	60	2.2W	57	2.2W	53	2.2W	C/DV	C/DV	57	63	60	53	
Blaenavon	SO277063	60	30W	57	30W	53	30W	C/DV	C/DV	57	63	60	53	
Blaenllechau	SS999976	24	2W	21+	2W	27	2W	AH	AH	21	27	24	31	
Blaina	SO196083	43	20W	50	20W	46	20W	BV	BV	40	46	43	50	
Brecon	SO054287	61	200W	54	200W	58	200W	C/DV	C/DV	58	64	61	54	
Chepstow	ST544939	24	2W	21+	2W	27	2W	AV	AV	21	27	24	31	
Clydach	SO227125	23	2W	29	2W	26	2W	AV	AV	33	26	23	29	
Clyro	SO204432	41+	32W	47	32W	44	32W	BV	BV	51	44	41	47	
Crickhowell	SO206202	24	30W	21+	30W	27	30W	AV	AV	21	27	24	31	
Crucorney	SO323222	24	2.2W	27	2.2W	21+	2.2W	AV	AV	21	27	24	31	
Crumlin	ST228984	60	2W	57	2W	53	2W	C/DV	C/DV	56	66	60	68	
Cwm Ffrwd-Oer	SO265014	43	2W	46	2W	50	2W	BV	BV	39	46	43	50	
Cwmafon	SS798936	24	14W	21+	14W	27	14W	AV	AV	21	27	24	31	

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Cwmaman	ST000993	49	2W	42	2W	45	2W	BV	BV	39	45	49	42	
Cwmfelinfach	ST184909	48	2W	52	2W	56	2W	C/DV	BV	52	45	48	42	
Deri	SO121022	25	1W	22	1W	28	1W	AV	AV	22	28	25	32	
Dowlais	SO073088	61	2.6W	58	2.6W	54	2.6W	C/DV	C/DV	58	64	61	54	
Ebbw Vale	SO159088	59	100W	55	100W	62-	100W	C/DV	C/DV	55	62	59	65	
Ebbw Vale South	SO176073	24	4W	27	4W	21+	4W	AV	AV	27	21	24	31	
Ferndale	ST006969	60	20W	57	20W	53	20W	C/DV	C/DV	57	63	60	53	
Fernhill	ST030993	59	2W	55	2W	62-	2W	C/DV	C/DV	55	62	59	65	
Gelli-fendigaid	ST070935	59	2.4W	55	2.4W	62-	2.4W	C/DH	C/DH	55	62	59	65	
Gilfach	SS982890	24	10W	21+	10W	27	10W	AV	AV	21	27	24	31	
Llanfach	ST217947	60	2W	57	2W	53	2W	C/DH	C/DH	57	63	60	53	
Llanfoist	SO308143	60	14.4W	53	14.4W	57	14.4W	C/DV	C/DV	57	63	60	53	
Llangeinor	SS905886	59	38W	55	38W	62-	38W	C/DV	C/DV	55	62	59	65	
Llanharan	SS998832	24	2W	21+	2W	27	2W	AV	AV	21	27	24	31	
Llanhilleth	SO213003	49	10W	42	10W	45	10W	BV	BV	39	45	49	42	
Llyswen	SO137361	24	6W	27	6W	21+	6W	AV	AV	21	27	24	31	
Machen Upper	ST211897	62-	7.2W	55	7.2W	59	7.2W	C/DV	C/DV	55	65	62	68	
Maesteg	SS841912	25	50W	22	50W	28	50W	AV	AV	22	28	25	32	
Merthyr Tydfil	SO057065	25	25W	22	25W	28	25W	AV	AV	22	28	25	32	
Monmouth	SO526127	59	46W	55	46W	62-	46W	C/DV	C/DV	55	62	59	65	
Mynydd Bach	ST168926	61	50W	58	50W	54	50W	C/DV	C/DV	58	64	61	54	
Mynydd Machen	ST223900	23+	400W	26+	400W	29+	400W	AV	AV	33	26	23	29	

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Nant-y-Moel	SS934935	27	2W	21+	2W	24	2W	AV	AV	21	27	31	24	
Nantyglo	SO189106	60	2W	57	2W	53	2W	C/DV	C/DV	57	63	60	53	
Ogmore Vale	SS929894	60	20W	57	20W	53	20W	C/DV	C/DV	57	63	60	53	
Pennar	ST209958	43	20W	46	20W	50	20W	BV	BV	40	46	43	50	
Pennorth	SO103267	23	10W	29	10W	26	10W	AV	AV	33	26	23	29	
Penrhiwceiber	ST066966	53	2W	57	2W	60	2W	C/DV	C/DV	57	63	53	60	
Pontypool	ST284990	23+	50W	26+	50W	29+	50W	AV	AV	21	27	24	31	
Pontypridd	ST084904	25	400W	22	400W	28	400W	AV	AV	22	28	25	32	
Porth	ST029919	43	11.8W	46	11.8W	50	11.8W	BV	BV	40	46	43	50	
Rhondda Fach	ST007939	25	2W	22	2W	28	2W	AV	AV	22	28	25	32	
Rhondda HP	SS990938	23	10W	26	10W	29	10W	AH	E/WH	66	39	49	68	
Rhondda VP	SS990938	23	1kW	26	1kW	29	1kW	AV	AV	33	26	23	29	
Rhymney	SO127043	60	30W	57	30W	53	30W	C/DV	C/DV	57	63	60	53	
Risca	ST240906	43	2W	46	2W	50	2W	BV	BV	40	46	43	50	
Sennybridge	SN914295	43	12.8W	50	12.8W	46	12.8W	BV	BV	40	46	43	50	
South Maesteg	SS860897	59	2W	55	2W	62-	2W	C/DV	C/DV	55	62	59	65	
South Tredegar	SO155060	49	2.6W	42	2.6W	45	2.6W	BV	BV	52	45	49	39	
Taffs Well	ST123848	59	10.4W	55	10.4W	62-	10.4W	C/DV	C/DV	55	62	59	65	
Tonpentre	SS960955	61	16W	58	16W	54	16W	C/DV	C/DV	58	64	61	54	
Tonypandy	SS986924	59	2W	55	2W	62-	2W	C/DV	C/DV	55	62	59	65	
Tonyrefail	ST009874	59	4W	55	4W	62-	4W	C/DV	C/DV	55	62	59	65	
Trebanog	ST020906	24	2W	27	2W	21+	2W	AV	AV	21	27	24	34	

Site Name	NGR	BBC A		D3&4		BBC B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
Trecastle	SN885274	25	2W	22	2W	28	2W	AV	AV	22	28	25	32	
Trefechan	SO030085	42	10W	49	10W	45	10W	BV	BV	39	45	42	49	
Treharris	ST103964	52	10W	48	10W	56	10W	C/DV	C/DV	56	48	52	68	
Tynewydd	SS931993	59	4W	62-	4W	55	4W	C/DV	C/DV	55	62	59	65	
Upper Killay	SS590927	24	2W	21+	2W	27	2W	AV	AV	21	27	24	31	
Usk	SO384006	48	3.6W	52	3.6W	56	3.6W	C/DH	BH	52	45	48	42	
Van Terrace	ST168864	49	2W	45	2W	42	2W	BV	BV	39	45	49	42	
Wattsville	ST215911	60	2W	57	2W	53	2W	C/DV	C/DV	63	57	60	53	
Ynysowen	ST082992	59	16W	55	16W	62-	16W	C/DV	C/DV	55	62	59	65	

### Wenvoe transmitter group - Commercial (COM) Multiplexes

Site Name	NGR	SDN		Arqiva A		Arqiva B		DSO Aerial Group	Pre-DSO Aerial Group	Analogue Frequencies				
		Channel	ERP	Channel	ERP	Channel	ERP			BBC1	BBC2	ITV1	S4C	C5
<b>Wenvoe<sup>h</sup></b>	<b>ST110741</b>	<b>42+</b>	<b>50kW</b>	<b>45</b>	<b>50kW</b>	<b>49</b>	<b>50kW</b>	<b>BH</b>	<b>BH</b>	<b>44</b>	<b>51</b>	<b>41</b>	<b>47</b>	
Aberdare	SO034012	25+	100W	22+	100W	28+	100W	AV	AV	21	27	24	31	
Pontypool	ST284990	25-	50W	22-	50W	28-	50W	AV	AV	21	27	24	31	

<sup>h</sup> SDN at Wenvoe is expected to operate temporarily on channel 51 (at 10kW ERP), and Arqiva A to temporarily operate on channel 30 (at 10kW ERP), until 2011

## Glossary

Site Name:	The name of the transmitter site. Main transmitters are highlighted in <b>bold</b> , with their dependent relays listed alphabetically below them. Public Service Broadcaster (PSB) and Commercial (COM) multiplexes are shown in separate tables.
NGR:	The location of the transmitter site, in Ordnance Survey National Grid Reference (Landranger) format.
Multiplex names:	The post-switchover name of the multiplex. See below for more details
Channel	The UHF channel number of the multiplex. The centre frequency, $F_c$ (in Megahertz) of the multiplex can be calculated using $F_c=8n+306$ , where $n$ is the UHF channel number. A + or - following the channel number indicates that the frequency is offset by +0.167MHz or -0.167MHz with respect to the channel centre.
ERP	The Effective Radiated Power of the multiplex, in watts (W) or kilowatts (kW)
DSO	Digital Switchover
DSO Aerial Group:	Suggested aerial group for reception of the 3 PSB multiplexes (and the 3 COM multiplexes, where broadcast) from this transmitter after digital switchover. See below for more information on aerial groups. The final character in this column indicates whether signals are horizontally (H) or vertically (V) polarised.
DSO Aerial Group Colour codes:	All DSO frequencies at this transmitter are re-assigned analogue frequencies. If aerials and cabling are in good condition, viewers should not need to replace them.
	One or more DSO frequencies were previously unused at this transmitter by analogue TV, but all DSO channels fall within the analogue aerial group. If aerials and cabling are in good condition, replacement should not be necessary. Some changes may be required to larger systems which contain channelised components, such as communal aerial (MATV / IRS) systems.
	One or more DSO frequencies were previously unused at this transmitter by analogue TV, and these also fall outside the existing analogue aerial group. Therefore a replacement aerial of a different group may be required. Some changes may be required to larger systems which contain channelised components, such as communal aerial (MATV / IRS) systems.
Pre-DSO Aerial Group:	Suggested aerial group for reception of analogue services from this transmitter. The aerial groups shown are based upon four-channel reception and do not take into account Channel 5's analogue frequencies where these are out of group.
Analogue channels:	The UHF channel numbers of the analogue services currently broadcast from this transmitter site. The nominal analogue vision carrier frequency, $F_v$ (in Megahertz) of the service can be calculated using $F_v=8n+303.25$ , where $n$ is the UHF channel number.
Single Frequency networks (SFNs)	In order to maximise digital coverage, some transmitter sites will operate as Single Frequency Networks (SFNs) at switchover. In an SFN, neighbouring transmitters use the same frequencies as each other.

## Multiplex Names

The current designations of the six multiplexes will change at switchover, and the table below compares their current and future names:

Current Multiplex Name	Post-Switchover Name	Operator
1	BBC A	BBC
2	D3&4	Digital 3 & 4
A*	SDN	SDN
B	BBC B	BBC
C	Arqiva A	Arqiva
D	Arqiva B	Arqiva

\* We expect that Five, currently carried on multiplex A, will move to a PSB multiplex prior to switchover.

## Aerial Groups

Television aerials are designed to operate most efficiently over a specific range of frequencies, as shown in the table below. For guidance, this document suggests a suitable aerial group for reception of the digital services from each transmitter. Where a transmitter uses a semi-wideband channel grouping (E or K), a wideband (W) aerial is also suggested as an alternative. The colour codes in the table below are often used by aerial manufacturers to aid identification of the aerial's group.

Aerial Group	Channels	Colour Code
A	21-37	Red
B	35-53	Yellow
C/D	48-68	Green
E	35-68	Brown
K	21-48	Grey
W	21-68	Black

## Transmission Mode

It is anticipated that the post-switchover transmission mode for all multiplexes, except BBC B, will be 64QAM modulation, rate 2/3. The BBC B multiplex will be converted to the DVB-T2 standard as switchover occurs in each region from the end of 2009 onwards, though the modulation mode to be adopted is not yet known. The BBC B multiplex will be converted after switchover in regions where switchover happens before the end of 2009 - dates will be announced in due course.

## Transitional Transmission Characteristics

Transmission frequencies are intensively used in many parts of the UK. To avoid unnecessary interference being caused to viewers, a certain number of multiplexes will need to operate with 'transitional' transmission characteristics for a limited period following switchover at particular transmitters. These transitional characteristics are only likely to affect a small proportion of sites. For example, some channels may need to operate at slightly reduced power levels compared to the final post-switchover allocations shown in this booklet. This is primarily in order to prevent interference being caused to neighbouring transmitters which may not switchover until later in the regional sequence. Full power operation will be adopted when these interference constraints are removed, generally when

the neighbouring transmitter or region switches over. Details of known transitional arrangements affecting particular transmitters are given in the footnotes on each page.

### **Analogue Channel Changes**

For practical engineering reasons, some analogue channel allocations may need to be altered in the period immediately before switchover begins at a particular transmitter. This may involve swapping the frequencies of some programme services. In other cases, a previously unused analogue frequency may need to be used temporarily to allow high-power digital broadcasts to begin.

Viewers will be informed of any such channel changes by Digital UK and the broadcasters in the run up to switchover.

### **Switchover Dates**

Up-to-date information on switchover dates is available from Digital UK

[www.digitaluk.co.uk](http://www.digitaluk.co.uk).

### **Transmitter Locations**

Maps showing the location of TV transmitters within individual regions are available on Ofcom's website at:

[www.ofcom.org.uk/tv/ifi/tech](http://www.ofcom.org.uk/tv/ifi/tech)

## Document History

Version	Date	Details
1.0	24/10/2007	Document Issued
2.0	5 /11/ 2008	Com mux names revised. Map removed and replaced with link to online version. Transmission mode section revised to include DVB-T2.
3.0	5/3/2009	Frequency offsets added. Fishguard, Ystumtuen, Mynydd Emroch change transmitter groups and channel allocations. Long Mountain channel allocations and transitional channel allocations changed. Ferryside ERP note added. Moel-y-Parc transitional powers changed. Cefn-mawr transitional powers and analogue frequencies modified Minor editorial amendments. Relay attributions finalised.

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