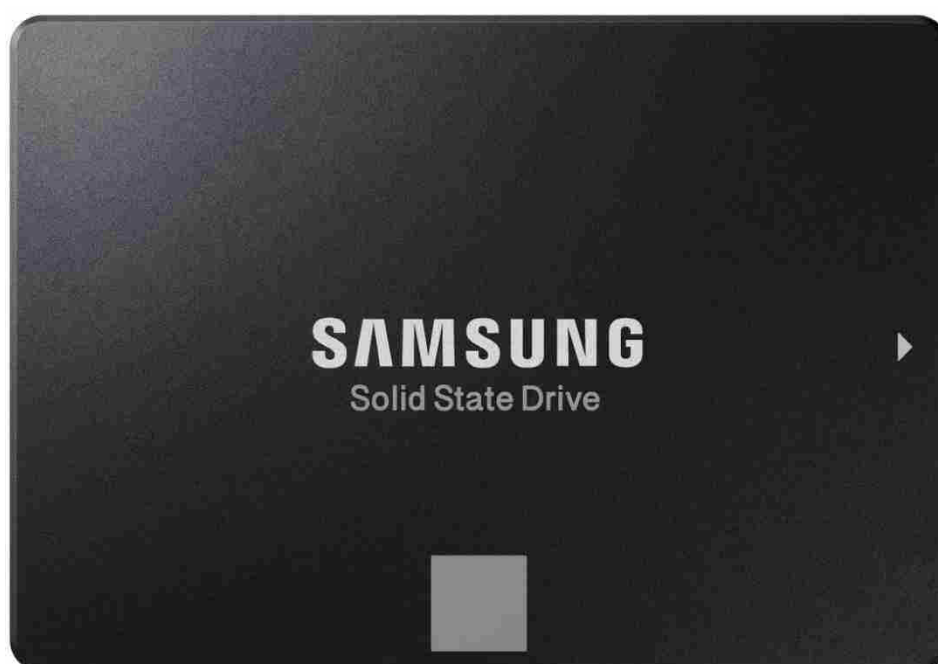


Samsung V-NAND SSD

87 EVO

! !1 Da"a S#ee"

Revision 1.1



LEGAL DISCLAIMER

SAMSUNG ELECTRONICS CO., LTD. RESERVES THE RIGHT TO CHANGE PRODUCTS, INFORMATION AND SPECIFICATIONS WITHOUT NOTICE.

Products and services are provided as is, without warranty of any kind. Samsung Electronics Co., Ltd. No part of this document, its contents, or the products described herein may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Samsung Electronics Co., Ltd. For more information, please contact your local Samsung representative.

COPYRIGHT © 2021

This document is the property of Samsung Electronics Co., Ltd. All rights reserved. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of Samsung Electronics Co., Ltd.

TRADEMARKS & SERVICE MARKS

Samsung and the Samsung logo are trademarks of Samsung Electronics Co., Ltd. All other trademarks are the property of their respective owners.

For more information, please visit www.samsung.com and www.samsung.com.
To download this manual, visit www.samsung.com.

TECHINICAL SPECIFICATIONS

Sa (sun) SSD 456 EVO

Usa)!	C&! nt PCs						
A &"cat"on	SATA 7 G-2s Int! r#ac! , co(at"-&! *"\$ SATA 8 G-2s 3 9.: "nt! r#ac! s						
Hard* ar! In#or(at"on	Ca ac"t' 9;	<: 6G=	: 66G=	9T=	<T=	>T=	
	Contro&&! r	Sa (sun) M?@ Contro&&! r					
	NAND F&as\$ M! (or'	Sa (sun) VANAND 8-"t MLC					
	DRAM Cac\$! M! (or'	: 9<M= LPDDR>	9G= LPDDR>	<G= LPDDR>	>G= LPDDR>		
	D"(! ns"ons	966/ 7B.4: / 7.4(((;					
	For(Factor	<.: "nc\$					
P! r#or(anc! CU to.;<:	S! Ou! nt"a&R! ad	: 76 M=2s					
	S! Ou! nt"a&Wr"t! 8:	: 86 M=2s					
	>?= Ran. R! ad(DD9;	98,666 IOPS					
	>?= Ran. Wr"t! (DD9;	87,666 IOPS					
	>?= Ran. R! ad(DD8<;	84,666 IOPS					
	>?= Ran. Wr"t! (DD8<;	44,666 IOPS					
Po* ! r Consu(t"on>:	Id&!	DIPM on	86 (W	86 (W	86 (W	8: (W	8: (W
	Act"#! CA%);	R! ad2Wr"t!	<.6W2<.<W	<.6W2<.<W	<.6W2<.: W	<.<W2<.: W	<.<W2<.: W
	D! %s&		<.: (W	<.: (W	8.6 (W	>.: (W	7.: (W
R! &"a-"&t' >:	T! (.	O ! rat"n)	6EC to 56EC				
		NonA O ! rat"n)	A>6EC to 4: EC				
	Hu("d"t'		: F to B: F nonAcond! ns"n)				
	S\$oc.	NonA O ! rat"n)	9,: 66G, durat"on& 6.: (s, 8 a"/s				
	V"-rat"on	NonA O ! rat"n)	<6H<,666H1, <6G				
	MT=F		9.: ("on \$ours				
Warrant'	T=W:~	9: 6T=	866T=	766T=	9,<66T=	<,>66T=	
	P! r"od	: ' ! ar&"("t! d					
Su ort"n) F! atur! s	TRIM (R! Ou"r! d OS su ort; , Gar-a)! Co&&! ct"on, S.M.A.R.T						
Data S! cur"t'	AES <: 7A-"t Fu&&D"s. Encr' t"on, TCG20 a&V<.6, Encr' t! d Dr"%! CIEEE9775;						

9; G=6 9G= I 9,666,666,666 -' t!s. A cl rta"n ort"on o# ca ac"t' (a' -! us! d #or s'st! (#&! and (a"nt! nanc! us! , t\$us t\$! actua& a%a"ka-! ca ac"t' (a' d"##! r #ro(t\$! &a-!&! d tota&ca ac"t'.

<; S! Ou! nt"a& ! r#or(anc! (! asur! (! nts ar! -as! d on Cr' sta&D"s. Mar. %.: .6.<. Rando(! r#or(anc! (! asur! (! nts ar! -as! d on IO(! ! r9.9.6. P! r#or(anc! (a' %ar' -as! d on SSDs #r(* ar! %! rs"on, s'st! (\$ard* ar! 3 con#) urat"on. T! st s'st! (con#) urat"on& Int! &K Cor! "5A56? CPU L>.66 GH1, DDR8 9766MH1 4G=, OSAW"ndo*s 96 Pro 7>-"t, C\$" s! tAASUS MB5 PRO

8; S! Ou! nt"a& Wr"t! ! r#or(anc! (! asur! (! nts ar! -as! d on Int! &&) ! nt Tur-oWr"t! t! c\$no&o)'. T\$! s! Ou! nt"a& ! r#or(anc! (! asur! (! nts a#t! r Int! &&) ! nt Tur-oWr"t! r!) "on ar! 866M=2s (<: 62: 66G=, ; or : 86M=2s (9T=2<T=2>T=,.

>; Po* ! r consu(t"on s (! asur! d *"\$ IO(! ! r9.9.6 %! rs"on *"\$ Int! & Cor! "5A5566? L >>.GH1, SAMSUNG DDR> 97G=, G") a-' t! GAAM<56@, OS N W"ndo*s 96 PRO ? /7>

:: A&& docu(! nt! d ! nduranc! t! st r! su! ts ar! o-ta"n! d "n co(&anc! *"\$ 0ESD<94 Standards. P&! as! %"s"t * * * .P! d! c.or) #or d! ta&! d "n#or(at"on on 0ESD<94 Standards

7; T=W (! ans Tota& = ' t! s Wr"tt! n.

5; P&! as! r! #! r to t\$! d! ta&! d *arrant' stat! (! nt \$! r! at [\\$tt.t22sa\(sun\).co\(2sa\(sun\)ssd](http://$tt.t22sa(sun).co(2sa(sun)ssd).

4; Warrant' ro% d! s co%! ra)! #or t\$! stat! d t"(! ! r"od or t\$! T=W, *"\$ c\$! %! r co(! s #rst.



PRODUCT LINEUP

Designator	Model Name	Capacity / Contents	Model Code
<: 6G=Q	MMA55E<: 6	Sa (sun) SSD 456 EVO <: 6G= Warrant' Stat! (!nt	MMA55E<: 6=W MMA55E<: 6=2AM MMA55E<: 6=2EU MMA55E<: 6=2CN MMA55E<: 6=2?R
: 66G=Q	MMA55E: 66	Sa (sun) SSD 456 EVO : 66G= Warrant' Stat! (!nt	MMA55E: 66=W MMA55E: 66=2AM MMA55E: 66=2EU MMA55E: 66=2CN MMA55E: 66=2?R
9T= C9,666G=Q;	MMA55E9T6	Sa (sun) SSD 456 EVO 9T= Warrant' Stat! (!nt	MMA55E9T6=W MMA55E9T6=2AM MMA55E9T6=2EU MMA55E9T6=2CN
<T= C<,666G=Q;	MMA55E<T6	Sa (sun) SSD 456 EVO <T= Warrant' Stat! (!nt	MMA55E<T6=W MMA55E<T6=2AM MMA55E<T6=2EU MMA55E<T6=2CN
>T= C>,666G=Q;	MMA55E>T6	Sa (sun) SSD 456 EVO >T= Warrant' Stat! (!nt	MMA55E>T6=W MMA55E>T6=2AM MMA55E>T6=2EU MMA55E>T6=2CN

* G=6 9G= 1 9,666,666,666 -'t's -' IDEMA. T\$! actual& usa-!& ca ac"t' (a' -! &!ss t\$an t\$! &a-!&!d ca ac"t'. For (or! "n#or(at'on, "nc&ud"n) -ut not &"(t!d to t\$! *arrant' ro%"d!d #or t\$'s roduct, &!as! %"s"t * * *.sa(sun).co(2ssd and * * *.sa(sun)ssd.co(.

Revision History

Revision Number	Description	Revision Date
9.6	Initial Release	November 2016
9.9	Added TurboWrite! for (Android) T= c\$an)! C: 66 → : 86 M=2s;	January 2019